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STEEL DECK PANELS

CSI Division: 05 00 00 Metals

CSI Section: 05 32 00 Steel Deck
05 31 13 Steel Floor Decking
05 31 23 Steel Roof Decking

1.0 RECOGNITION

Steel deck panels described in this report were evaluated for use as steel decking. The design and use of steel deck panels covered by this report include horizontal or sloped floor and roof systems supporting out-of-plane loads, and in-plane diaphragm shears. The structural and fire resistance properties of the steel decking comply with the provisions and intent of the following codes:

- 2024 International Building Code® (IBC)
- 2024 International Residential Code® (IRC)
- 2025 California Building Code® (CBC) – attached supplement
- 2025 California Residential Code® (CRC) – attached supplement
- 2026 City of Los Angeles Building Code (LABC) – attached supplement
- 2026 City of Los Angeles Residential Code (LARC) – attached supplement

2.0 LIMITATIONS

Use of the steel deck panels described in this report is subject to the following limitations:

2.1 Acoustic Performance: Acoustic performance of the steel deck panels is beyond the scope of this report.

2.2 Vibratory Performance: Loads that are primarily vibratory are beyond the scope of this report. The registered design professional shall analyze and design the steel deck panels to support these loads as needed.

2.3 The steel deck panels are manufactured, identified, and installed in accordance with this report, SDI Standards, the approved plans, and the manufacturer's published installation instructions. If there is a conflict, the most restrictive requirements shall govern.

2.4 Calculations and details demonstrating that the loads applied to the steel deck panels complying with this report shall be submitted to the building official for approval. Calculations and drawings shall 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.

2.5 The steel deck panels in this report are manufactured in Goodyear, Arizona.

3.0 PRODUCT USE

3.1 General: Steel deck may be designed to resist out-of-plane loads, in-plane diaphragm shear loads, and axial loads. The registered design professional of record shall verify that imposed loads on the steel deck panels do not exceed the design loads contained within this report.

3.2 Design: Design values and capacities shall be determined in accordance with the tables provided in this report, or by a separate calculation prepared in accordance with the applicable provisions of AISI S100, AISI S310, ANSI/SDI SD, and SDI DDM04, as applicable. Separate calculations shall use the section properties provided in this report and shall be reviewed and approved by a registered design professional.

Alternatively, design values established in a current evaluation report issued by an approved evaluation service agency for a fastener manufacturer may be used, provided the fastener system, installation requirements, and design conditions are applicable to the project.

The above requirements apply to steel deck connections, diaphragm design, and design for superimposed loads. The section properties shown in the tables of this report may also be used, in accordance with the applicable provisions of SDI RD-2017, SDI C-2017, and SDI NC-2017 (or AISI S100 and AISI S310, as applicable), to produce calculations for projects governed by the 2018 IBC, 2021 IBC, 2019 CBC, or 2022 CBC if required by the registered design professional.

3.2.1 Connections

3.2.1.1 Self-Drilling Screws: Self-Drilling screws may be used to attach steel deck panels to supports and as the deck attachment to other deck panels (deck sidelap) in accordance with AISI S100 and AISI S310. The screws shall comply with AISI S100 requirements.

3.2.1.2 Proprietary Fasteners: Proprietary screws and Power Actuated Fasteners (PAF's) may be used to attach

The product described in this Uniform Evaluation Service (UES) Report has been evaluated as an alternative material, design or method of construction in order to satisfy and comply with the intent of the provision of the code, as noted in this report, and for at least equivalence to that prescribed in the code in quality, strength, effectiveness, fire resistance, durability and safety, as applicable, in accordance with Section 104.2.3 of the 2024 IBC and Section 104.11 of previous editions. This document shall only be reproduced in its entirety.

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steel deck panels to supporting members in accordance with either this report or a report provided by the proprietary fastener manufacturer. All proprietary fasteners shall be designed to attach the steel deck panels to a supporting member and shall be described in a current evaluation report issued by an approved and accredited evaluation service agency.

3.2.1.3 Welds: Welds may be used to attach steel deck panels to supports and as the deck attachment to other deck panels (deck sidelap) in accordance with AISI S100 and AISI S310. Weld rod or filler shall comply with the appropriate AWS standard and have a minimum tensile strength of 60 ksi (413.7 MPa).

3.2.1.4 Non-Piercing Button Punch (BP): BP may be used to attach steel deck panels to other steel deck panels (deck sidelap) in accordance with AISI S310.

3.2.2 Diaphragm: Load and Resistance Factor Design (LRFD) and Allowable Strength Design (ASD) diaphragm shear and stiffness (flexibility) shall be in accordance with the appropriate tables of this report or per Section 3.2 of this report.

The diaphragm shall be limited by:

a. Engineering mechanics using the shear stiffness (or flexibility factor) of the diaphragm.
b. Shear capacity of the diaphragm.
c. Diaphragm deflection in accordance with ASCE/SEI 7 Section 12.8.6, Story Drift Determination, and Section 12.12, Drift and Deformation.
d. Applied loads to the system.

3.2.2.1 Bare Deck Diaphragm: Diaphragm values shall be in accordance with the appropriate tables of this report or per Section 3.2, Design, of this report.

3.2.2.2 Concrete Filled Diaphragm: Diaphragm values shall be in accordance with the appropriate tables of this report or per Section 3.2, Design, of this report. Web embossments are not required for a concrete-filled diaphragm in accordance with AISI S310.

3.2.3 Bare Deck Superimposed Loads: Load and Resistance Factor Design (LRFD) and Allowable Strength Design (ASD) superimposed loads shall be in accordance with the appropriate tables of this report or per Section 3.2, Design, of this report.

3.2.4 Composite Steel Deck-slabs Superimposed Loads: Composite Steel Deck-slabs Load and Resistance Factor Design (LRFD) and Allowable Strength Design (ASD) superimposed loads shall be in accordance with the appropriate tables of this report or per Section 3.2 Design of this report.

3.3 Fire Resistance: The steel deck panels are permitted to be used as a component of a fire-resistance-rated assembly in accordance with IBC Chapter 7.

3.4 Partial Panels, Openings, Holes or Penetrations Through Steel Deck: For lateral force resisting systems, the calculations shall consider the effects of the partial panels, openings, holes or penetrations on the overall strength and stiffness of the diaphragm. The registered design professional may submit calculations and opening details for their design based on the principles of mechanics to the Authority Having Jurisdiction (AHJ) for approval.

3.5 Installation: Installation methods and sequencing of steel deck erection are the responsibility of the contractor(s) installing the steel deck. Methods shall be in accordance with this report, the SDI Manual of Construction (3rd Edition), the SDI Code of Standard Practice (COSP), ANSI/SDI SD, and AWS D1.1/D1.3. If there are any conflicts, the most restrictive shall govern. Additional recommendations from the manufacturer may be followed.

3.6 Inspections

3.6.1 Special Inspections: Special inspections are required in accordance with IBC Chapter 17. Special inspections and welding qualifications are required in accordance with the quality assurance inspection section of the SDI QA/QC.

3.6.2 Structural Observations: Structural Observation is required in accordance with IBC Section 1704.6 Structural Observations.

3.6.3 Job Site Welding: Special inspections for welding shall be in accordance with IBC Section 1705.2.3 Cold-formed steel deck. Prior to work starting, the welder shall demonstrate the ability to produce the prescribed weld appropriately to the special inspector.

3.6.4 Concrete: Special inspections for concrete shall be in accordance with Section 1705.3 of the IBC.

4.0 PRODUCT DESCRIPTION

4.1 Product Information: All decks are cold-formed from steel sheets into panels with fluted profiles. The steel deck finishes may be galvanized, primer painted, or mill finishes (bare steel). The steel deck panels include profile, sidelap type, applicable support attachment, and applicable sidelap fasteners for the various fluted profiles as described in the tables and figures of this report.

Galvanized steel deck is formed from ASTM A653, SS, Grade 50, Class 1 or Class 3; ASTM A653, SS, Grades 55, or 60; ASTM A653, HSLAS Grade 55, Class 1 or Class 2; HSLAS Grades 60, 70, or 80; HSLAS-F, Grade 55, Class 1

or Class 2; or HSLAS-F, Grades 60, 70, or 80 steel with a minimum of a G30 coating designation. Other galvanized thicknesses in accordance with ASTM A653 are allowed. The primer-painted, or mill-finish (bare steel) deck is formed from ASTM A1008, SS, Grade 50 steel. Primer-painted deck may have one or both sides of the deck painted as required. Mill-finish (bare steel) deck will have no coating on either top or bottom of the deck.

4.2 Concrete: Concrete shall comply with Chapter 19 of the IBC and be composed of either normal weight or light weight. The minimum 28-day compressive strength of the concrete shall be 3,000 psi, in accordance with General Note 10 of this report. Calcium Chloride and other corrosive additives shall not be used in the mix unless permitted by ACI 318, ANSI/SDI SD.

5.0 IDENTIFICATION

All deck bundles will be identified with a visible label. This label includes the manufacturer's name and address, deck type, steel gage, and the evaluation report number (IAPMO UES ER-0981).

The IAPMO Uniform Evaluation Service Mark of Conformity may also be used as shown below:

6.0 SUBSTANTIATING DATA

Data in accordance with the IAPMO-ES EC007-2024 Evaluation Criteria for Steel Composite, Non-Composite, and Roof Deck Construction.

7.0 STATEMENT OF RECOGNITION

This evaluation report describes the results of research completed by IAPMO Uniform Evaluation Service on Next Level Decking, LLC steel deck panels to assess conformance to the codes shown in Section 1.0 of this report and serves as documentation of the product certification. Products are manufactured at the location noted in Section 2.5 of this report under a quality control program with periodic inspections under the supervision of IAPMO UES.

For additional information about this evaluation report please visit www.uniform-es.org or email us at info@uniform-es.org

For SI:

1 inch = 25.4 mm
1 ksi = 6.895 MPa
1 psf = 47.88 Pa
1 plf = 14.5939 N/m
1 lb = 0.4326 kg
1 kip-inch = 112.99 N-m

TABLE OF CONTENTS

General

Table		Page
	Definition of Terms	6
	Figure 1- Perpendicular Attachment Patterns	7
	Figure 2 - Sidelap Types	7
	Figure 3 - Embossed Profiles	8
	General Notes	8-11
1a	Fastener Nominal Strength	12
1b	Fastener Nominal Stiffness	12
2	RDB-36 and FDB-36 Section Properties (1.5-inch B-Deck)	13
3	RDB-36 and FDB-36 Web-Crippling (1.5-inch B-Deck)	14
4	RD3N-32 Section Properties (3-inch N-Deck)	15
5	RD3N-32 Web-Crippling (3-inch N-Deck)	16
6	FD2W-36 Section Properties (2-inch Composite Deck)	17
7	FD2W-36 Web-Crippling (2-inch Composite Deck)	18
8	FD3W-36 Section Properties (3-inch Composite Deck)	19
9	FD3W-36 Web-Crippling (3-inch Composite Deck)	20

Composite (Floor) Deck with Concrete

Table		Page		Page
10	FDB-36 (1.5-inch Composite) - Composite Deck Shear, Stiffness and Superimposed Loads			
	10a: 3.5" Total Slab Thickness NWC (145 pcf)	21	10f: 6.75" Total Slab Thickness NWC (145 pcf)	2426
	10b: 4" Total Slab Thickness NWC (145 pcf)	22	10g: 3.5" Total Slab Thickness LWC (110 pcf)	2527
	10c: 4.5" Total Slab Thickness NWC (145 pcf)	23	10h: 4" Total Slab Thickness LWC (110 pcf)	2628
	10d: 5" Total Slab Thickness NWC (145 pcf)	24	10i: 4.75" Total Slab Thickness LWC (110 pcf)	2729
	10e: 6" Total Slab Thickness NWC (145 pcf)	25	10j: 5.75" Total Slab Thickness LWC (110 pcf)	2830
11	FD2W-36 (2-inch Composite) - Composite Deck Shear, Stiffness and Superimposed Loads			
	11a: 4" Total Slab Thickness NWC (145 pcf)	31	11f: 7.25" Total Slab Thickness NWC (145 pcf)	36
	11b: 4.5" Total Slab Thickness NWC (145 pcf)	32	11g: 4" Total Slab Thickness LWC (110 pcf)	37
	11c: 5" Total Slab Thickness NWC (145 pcf)	33	11h: 4.5" Total Slab Thickness LWC (110 pcf)	38
	11d: 5.5" Total Slab Thickness NWC (145 pcf)	34	11i: 5.25" Total Slab Thickness LWC (110 pcf)	39
	11e: 6" Total Slab Thickness NWC (145 pcf)	35	11j: 6.25" Total Slab Thickness LWC (110 pcf)	40
12	FD3W-36 (3-inch Composite) - Composite Deck Shear, Stiffness and Superimposed Loads			
	12a: 5" Total Slab Thickness NWC (145 pcf)	41	12f: 8.25" Total Slab Thickness NWC (145pcf	46
	12b: 5.5" Total Slab Thickness NWC (145 pcf)	42	12g: 5" Total Slab Thickness LWC (110 pcf)	47
	12c: 6" Total Slab Thickness NWC (145 pcf)	43	12h: 5.5" Total Slab Thickness LWC (110 pcf)	48
	12d: 6.5" Total Slab Thickness NWC (145 pcf)	44	12i: 6.25" Total Slab Thickness LWC (110 pcf)	49
	12e: 7.5" Total Slab Thickness NWC (145 pcf)	45	12j: 7.25" Total Slab Thickness LWC (110 pcf)	50

TABLE OF CONTENTS (cont.)

Bare (Roof) Deck

Table		Page
13	RDB-36 (1.5-inch Roof) - Bare Deck Superimposed Loads	51-52
14	RDB-36 (1.5-inch Roof) - 3/4" Arc Spot Welds Deck Shear and Stiffness	53-61
15	RDB-36 (1.5-inch Roof) - #12 Screws Deck Shear and Stiffness	62-64
16	RDB-36 (1.5-inch Roof) - #14 Screws Deck Shear and Stiffness	65-67
17	RD3N-32 (3-inch Roof) - Bare Deck Superimposed Loads	68-69
18	RD3N-32 (3-inch Roof) - 3/4" Arc Spot Welds Deck Shear and Stiffness	70-72
19	RD3N-32 (3-inch Roof) - #12 Screws Deck Shear and Stiffness	73
20	RD3N-32 (3-inch Roof) - #14 Screws Deck Shear and Stiffness	74
N/A	CALIFORNIA SUPPLEMENT – CBC 2025 / CRC 2025	75
N/A	CITY OF LOS ANGELES SUPPLEMENT – LABC 2025 / LARC 2025	76

1. Definition of Terms:

A_e: Effective cross-sectional area
A_g: Gross cross-sectional area
D_1, D_2, D_3, D_4: Shear Stiffener Coefficient
E: Modulus of Elasticity of steel, 29,500 ksi
e: 1/2 of the bottom flat width of the panel measured between points of intercept
f: The top flat width of the panel measured between points of intercept
G': Diaphragm stiffness
F_u: Tensile strength of steel
F_y: Yield stress of steel
h: Flat depth of web h =$h_w \sin\Theta$
h_w: Flat length of the web measured along the plane of the web
I_{xg}: Gross moment of inertia about the X axis
I_{d+}: Positive moment of inertia due to vertical uniform loads for deflection
I_{d-}: Negative moment of inertia due to vertical uniform loads for deflection
I_{e+}: Positive effective moment of inertia
I_{e-}: Negative effective moment of inertia
K: Composite deck slab coefficient
M_{n+}: Positive nominal flexural strength
M_{n-}: Negative nominal flexural strength
R: Inside bend radius
r: radius of gyration
s: Develop flute width per pitch = f+2e+2w
S_{e+}: Positive effective section modulus
S_{e-}: Negative effective section modulus
S_n: Nominal diaphragm shear
$S_{x(b)}$: Section modulus about the X axis for the bottom fiber of the gross section
$S_{x(t)}$: Section modulus about the X axis for the top fiber of the gross section
t: Base steel thickness of steel deck panel
T_n: Nominal tensile axial strength of the steel deck panel
V_n: Nominal shear strength of the steel deck panel
w: Point-of-intercept to point-of-intercept web width
w_{deck}: Weight of steel deck panel
w_{tf}: Flat width of top flange
w_{bf}: Flat width of bottom flange
y_b: Vertical distance from the centroid of the section to the extreme bottom fiber
y_t: Vertical distance from the centroid of the section to the extreme top fiber
μ: Poisson's ratio for steel, 0.3
Θ: Angle between the vertical and the plane of the web
Ω: Safety factor for Allowable Strength Design (ASD), applied to nominal strength values in accordance with AISI S100 and AISI S310, as applicable to the limit state under consideration
Φ: Resistance factor for Load and Resistance Factor Design (LRFD), applied to nominal strength values in accordance with AISI S100 and AISI S310, as applicable to the limit state under consideration
Ω_w: ASD safety factor specific to web-crippling reactions, per AISI S100 Section G5
ϕ_w: LRFD resistance factor specific to web-crippling reactions, per AISI S100 Section G5

FIGURE 1- Perpendicular Attachment Patterns

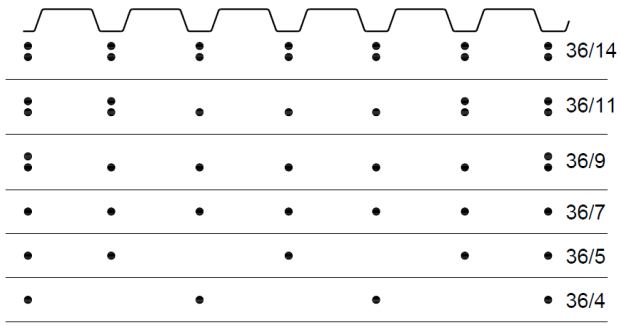
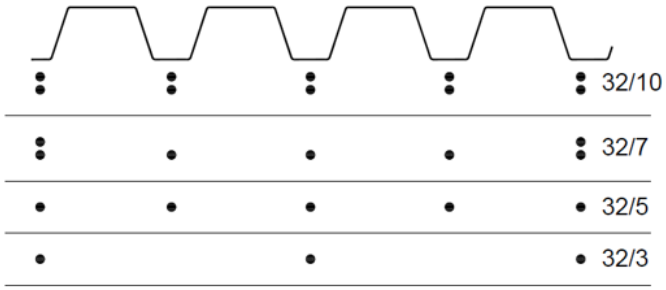
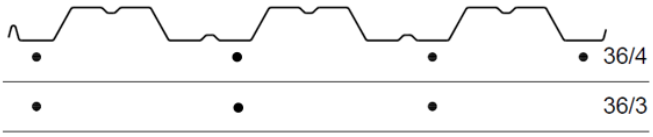
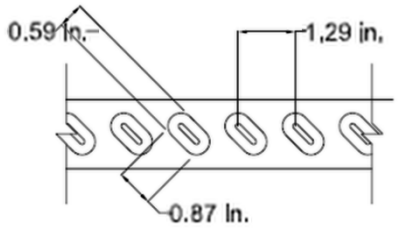
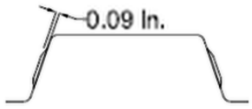
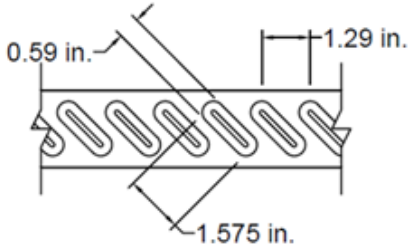
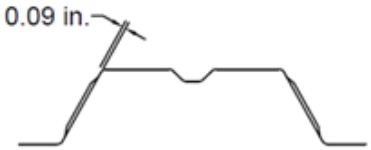
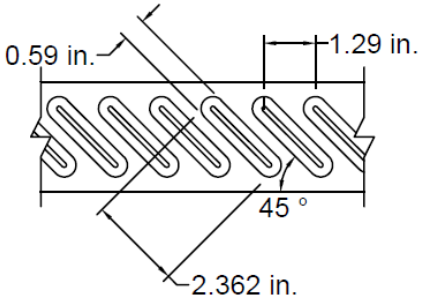
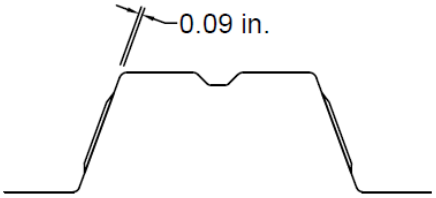
Profile	Profile Width (in.)	Rib Width (in.)	Pattern
1.5 Inch B Deck	36	6	
3 Inch Deep N Type Deck	32	8	
2 Inch Deep Composite Deck & 3 Inch Deep Composite Deck	36	12	

FIGURE 2 - Sidelap Types

Interlocking	Interlocking Screwed Sidelap	Nested

FIGURE 3 - Embossed Profiles		
Profile	**Side View**	**End View**
1.5 Inch Deep Composite Deck		
2 Inch Deep Composite Deck		
3 Inch Deep Composite Deck		

General Notes

1. Arc Spot Welds (ASW) and Arc Seam Welds shall have a minimum visible diameter as described in the appropriate table. Arc Seam Welds are allowed to be substituted for Arc Spot Welds if the equivalent or greater strength is maintained. Arc Seam Welds are a minimum of $^{3}/_{8}$ inch wide by 1 inch long.
2. Top Seam Welds (TSW) shall have a minimum length of 1½ inches and shall be fastened at a maximum of 3 feet on center when required.
3. Screws shall be #10, #12, or #14 hex head with integral solid washer with a washer thickness minimum of .050 inches and a washer diameter minimum of 0.3125 inches with thread-forming or thread-cutting and a self-drilling point in accordance with ASTM C1513. Minimum length of screw is ¾ inch, and the total length shall be long enough that a minimum of 3 threads extend past the final substrate.
4. Proprietary mechanical fasteners, including PAFs (Power Actuated Fasteners), shall be installed in accordance with the appropriate reports, the fastener manufacturer's recommendations, and installation instructions.

5. Minimum fastener edge distance shall be the greater of AISI S100 requirements or the following: ½ inch for self-drilling screws and power-actuated fasteners (PAFs); ¾ inch for welds, measured from the center of the arc spot weld or the center of the end radius of the arc seam weld; and 1.5 times the nominal screw diameter for side-lap screws. Greater distance may be required based on fastener type/size in accordance with AISI S310/S100.
6. Other connections, as defined and calculated in accordance with AISI S310 and AISI S100, may be used for sidelap, support connections, and connections to chords/struts/collectors for the deck, subject to the review and approval of the registered design professional of record.
7. Spacing of attachments for chords, struts, ties, or other collectors' elements parallel or perpendicular to the flutes shall be based on the shear capacity of the connector and the required shear transfer. For parallel attachments, spacing shall not exceed the interior sidelap spacing.
8. For deck spans less than or equal to 5 feet, sidelap fasteners shall not be required unless required for diaphragm design. For decks with spans greater than 5 feet, sidelaps shall be fastened at intervals not to exceed 36 inches on center, unless a closer fastener spacing is required for the diaphragm design.
9. Where individual panels are cut (skew or partial panel), the cut panels shall be fastened to fully transfer the shears of the diaphragm to the supports or adjacent panels. AISI D310-17, Design Examples for the Design of Profiled Steel Diaphragm Panels Based on AISI S310-16, provides an applicable method for partial-panel adjustment; verify results against the current edition of AISI S310, or use other methods as deemed appropriate by the registered design professional.
10. The minimum 28-day compressive strength for structural concrete shall be 3,000 psi, and the unit weight shall be as indicated in the tables. The minimum depth of concrete shall be at least 2 inches above the top flute of the deck.
11. Structural concrete temperature and shrinkage reinforcement, at a minimum, shall be welded wire reinforcement or reinforcing bars with a minimum area of 0.00075 times the area of the concrete above the top flute of the deck per foot, but not less than the area provided by 6 x 6 – W1.4 x W1.4 welded wire reinforcement. Other forms of temperature and shrinkage reinforcement may be substituted in accordance with ANSI/SDI SD and ACI 318 as appropriate. Fire resistance ratings and CBC A-codes may determine the type of reinforcement allowed.
12. Max unshored span calculations are based on the standard requirements in ANSI/SDI SD, including construction live load and deflection limits, with 3 psf of ponding weight used for both normal-weight and lightweight concrete.
13. Total slab thickness is the nominal depth of concrete from the top of the concrete to the bottom of the steel deck.
14. Values in tables for fastener/connection design are based on a minimum support thickness of 0.125 inch, F_y = 33 ksi, and F_u = 45 ksi support steel. For decks that require a combination of fasteners for varying conditions, the least strength fastener shall be used for design.
15. Steel deck may be butted or end-lapped. The standard end lap is a minimum of 2 inches and may be increased or decreased depending on requirements for bearing on the support, with a minimum bearing of 0.75 inch for web crippling in accordance with AISI S100. Fastener edge distances shall also be verified in accordance with this report and AISI S100.

Section Properties Tables

1. Based on the geometry and the provisions listed in the American Iron and Steel Institute North American Specification for the Design of Cold-Formed Steel Structural Members (S100), the section properties were calculated and displayed in each of their respective tables.
2. Thickness and weights for steel deck listed in tables rely on the base steel thickness for design. These values do not account for additional weight or thickness of the deck with prime paint or galvanization.
3. The equation $(2I_e + I_g)/3$ is used to calculate the hybrid moment of inertia, which is applicable when calculating deflection of the panel subject to uniform distributed loads.

Web Crippling

1. The ASD allowable and LRFD factored reactions are based on the deck type and specific bearing length on the support for the design (lbs/ft). This value depends on the web crippling capacity of a deck web multiplied by the number of webs per foot for the specific profile.
2. Web crippling is calculated in accordance with AISI S100 Section G5 for multi-web steel panels supported by framing for the uniform distributed load with the appropriate ASD and LRFD factors.
3. In accordance with Section G5 of the North American Specification for the Design of Cold-Formed Steel Structural Members (AISI S100), the registered design professional shall determine any reactions resulting from anything other than a uniformly distributed load for multi-web steel panels and any other loads that are required for the structure.
4. Minimum attachment patterns to the supports are shown in Figure 1 - Perpendicular Attachment Patterns. These attachment patterns are the minimum requirements for tables in this report.

Out-of-Plane Loads

1. Vertical load tables are based on section properties provided in the report and the equations of mechanics, which are most used for gravity and inward wind loads.
2. When considering wind uplift, the registered design professional shall use the section properties given throughout this report and the standard equations of mechanics as required for their design of a structure.
3. Both ASD (allowable) and LRFD (factored) uniform distributed loads are presented in this report. These loads are based on the bending capacity of the steel deck panels and maximum bearing for the deck type and thickness on a support. The registered design professional shall check web crippling and combined bending and web crippling based on the bearing of the steel deck on the supports.
4. Superimposed load capacities are tabulated for both bending strength and standard deflection limits (e.g., L/360, L/240, L/180, L/120), as applicable. The lesser of the strength-based (ASD/LRFD) and deflection-based load values governs the design capacity for a given span and limit condition.
5. Per the commentary in ANSI/SDI SD-2022, the SDI F3.2.1 Prequalified Section Method in the past capped the allowable ASD uniform load at 400 psf at a safety factor $\Omega = 1.75$, equaling a nominal load of 700 psf. The corresponding LRFD value uses $\varphi = 0.85$, the shear-controlling resistance factor (governs over $\varphi = 0.90$ for flexure), giving an LRFD load of 595 psf. This limitation is removed in ANSI SDI SD-2022 with Supplement 1. The registered design professional shall determine if this is applicable to their project.
6. For load conditions other than uniform loads, the registered design professional shall use the appropriate equations of mechanics and limits in accordance with their design.

Diaphragm Shears and Flexibility

1. The diaphragm shear strength and stiffness are calculated in accordance with AISI S100, AISI S310, or SDI DDM04 as appropriate.
2. Diaphragm rigidity classification (rigid vs. semi-rigid vs. flexible) shall be determined by the registered design professional in accordance with ASCE/SEI 7.
3. For decks with structural concrete fill, the diaphragm shear and stiffness values apply to deck panels with or without embossment. Panels without embossments do not act compositely with the structural concrete for vertical loads. In such cases, the structural concrete shall be treated as an additional dead load to the bare deck.
4. After determining deck gauge, span, connection to support pattern, spacing, and connection to support type, select the row and column to find diaphragm shears and flexibility factors. Linear interpolation between tabulated spans is permitted to determine diaphragm shear and stiffness values for spans not listed in the table. When interpolating, the diaphragm stiffness, G', for the span in question shall not be taken greater than the value corresponding to the next shorter tabulated span. When selecting a fastener, ensure that it coincides with a suitable range of support steel thicknesses. When a deck calls for different fasteners due to a range of support steel thicknesses, the weakest fastener should be used for design purposes.

5. Diaphragm values in this report are in accordance with AISI S310 with the appropriate safety factors for seismic loadings. The nominal diaphragm shear can be obtained from ASD or LRFD shears presented in the table, and then the appropriate wind load safety factors can be applied for wind load combinations.
6. For skew cut conditions, ensure that the number of fasteners used is not less than those required for parallel boundary conditions for a normal fastener per-foot basis. The minimum number of fasteners should be based on the diaphragm shear transfer required per foot for the deck in a non-skewed position.
7. The typical continuous 3-Span condition is used for diaphragm shear and stiffness in the bare deck tables with an end bearing of 3 inches.
8. For composite deck chords and collectors, oriented parallel or perpendicular to the deck flutes, the required number of fasteners shall be based on the diaphragm shear transfer required per foot of deck. These fasteners are in addition to the field attachment pattern specified in the tables. Any code-permitted fastener, including but not limited to 3/4" shear studs, pins, additional arc spot welds, and screws, may be used, with capacity per AISI S310 Section D4.4 (or an applicable evaluation report for proprietary fasteners), subject to type and spacing approval by the Engineer of Record.
9. Composite deck diaphragms in this report are in accordance with the AISI S310 Diagonal Tension Method (DTM). This strength-based design methodology provides diaphragm capacities that are not limited by deck span, unlike the traditional deck-and-concrete span-based diaphragm design approach. Verify all diaphragm, chord, collector, and fastener requirements in accordance with the EOR's design requirements.
10. For bare deck parallel chords and collectors, the required number of fasteners should be based on the diaphragm shear transfer required per foot for the deck.
11. Tables are based upon an interlocking deck when designing for attachment to supports. For an interlocking deck, a fastener is placed on either side of the sidelap, split by the raised interlock. The same one-on-each-side pattern applies to a nested deck as well, even though it lacks the visible interlock, both fasteners are simply placed within the same low flute. If more fasteners are required, the number will increase accordingly.
12. Composite Decks with concrete fill may be fastened at the sidelap with Button Punch (BP), screws or 1.5” top seam welds at 36” on center maximum for diaphragm shears shown in Tables 10, 11, and 12. More closely spaced connections may be required and are suggested to resist construction loads and when required for fire ratings.

TABLE 1a: Fastener Nominal Strength

Per AISI S100

Gage No.	Thickness	Type							
		Arc Spot Weld (Puddle Weld) (in)						Arc Seam Weld (in)	
		5/8"		3/4"		7/8"		1" x 3/8"	
		Shear	Tension	Shear	Tension	Shear	Tension	Shear	Tension
	(in)	(kips)	(kips)	(kips)	(kips)	(kips)	(kips)	(kips)	(kips)
22	0.0299	2.262	1.230	2.330	1.488	2.398	1.819	2.824	1.367
20	0.0359	3.024	1.462	3.260	1.772	3.342	2.169	3.358	1.625
18	0.0478	3.945	1.907	4.800	2.320	5.654	2.849	4.382	2.120
16	0.0598	4.176	2.336	5.902	2.853	6.971	3.456	5.370	2.598

Gage No.	Thickness	Type					
		Screws					
		#10		#12		#14	
		Shear	Tension	Shear	Tension	Shear	Tension
	(in)	(kips)	(kips)	(kips)	(kips)	(kips)	(kips)
22	0.0299	0.997	0.908	1.133	0.911	1.312	0.911
20	0.0359	1.197	0.908	1.361	1.033	1.575	1.094
18	0.0478	1.400	0.908	1.812	1.033	2.097	1.195
16	0.0598	1.400	0.908	2.000	1.033	2.600	1.195

Note(s): The tabulated values above are for a single sheet of deck; visible weld diameters will increase for lapped deck. AISI S100 Section J provides more details.

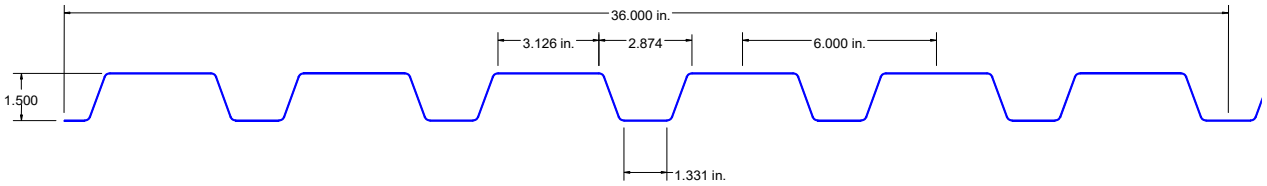
TABLE 1b: Fastener Nominal Stiffness

Per AISI S100

Gage No.	Thickness	Type						
		Arc Spot Weld (Puddle Weld)			Arc Seam Weld	Screws		
		5/8"	3/4"	7/8"	1" x 3/8"	#10	#12	#14
	(in)	(in/kips)	(in/kips)	(in/kips)	(in/kips)	(in/kips)	(in/kips)	(in/kips)
22	0.0299	0.006651	0.006651	0.006651	0.006651	0.007518	0.007518	0.007518
20	0.0359	0.006069	0.006069	0.006069	0.006069	0.006861	0.006861	0.006861
18	0.0478	0.00526	0.00526	0.00526	0.00526	0.005946	0.005946	0.005946
16	0.0598	0.004703	0.004703	0.004703	0.004703	0.004703	0.004703	0.004703

Note(s): The tabulated values above are nominal strengths and stiffnesses. Safety factors (Ω) for ASD or resistance factors (φ) for LRFD, in accordance with AISI S100 and AISI S310, shall be applied to obtain allowable (ASD) or design (LRFD) values.

TABLE 2: RDB-36 and FDB-36 Section Properties (1.5-inch B- Deck)



Gage No.	t	w_{deck}	A_g	I_{xg}	$S_{x(t)}$	$S_{x(b)}$	$y_{(t)}$	$y_{(b)}$	r $(I_{xg}/A_g)^{0.5}$	h_w	ϴ	K
	in.	psf	in^2/ft	in^4/ft	in^3/ft	in^3/ft	in.	in.	in.	in.	degrees	-
22	0.0299	1.676	0.493	0.193	0.310	0.211	0.619	0.911	0.626	1.363	70.19	1.00
20	0.0359	2.013	0.592	0.230	0.371	0.253	0.622	0.914	0.623	1.357	70.36	1.00
18	0.0478	2.683	0.789	0.307	0.490	0.335	0.629	0.919	0.623	1.343	70.69	1.00
16	0.0598	3.361	0.988	0.387	0.609	0.418	0.635	0.925	0.625	1.330	71.04	1.00

Gage No.	I_{e+}	I_{e-}	I_{d+} / I_{d-} Uniform Load $I_d = (2I_e+I_{xg})/3$		S_{e+}	S_{e-}	M_{n+} F_y*S_{e+}	M_{n-} F_y*S_{e-}	V_n Section G2.1	T_n $F_y* A_g$	AISI S310 Fig D2.1-1 & C1.6-1		
											e	f	w
	in^4/ft	in^4/ft	in^4/ft	in^4/ft	in^3/ft	in^3/ft	k-ft/ft	k-ft/ft	k/ft	k/ft	in	in	in
22	0.170	0.190	0.178	0.191	0.175	0.185	0.729	0.769	4.522	24.65	0.792	3.378	1.594
20	0.213	0.230	0.219	0.230	0.229	0.235	0.954	0.979	5.506	29.61	0.796	3.388	1.593
18	0.303	0.307	0.304	0.307	0.319	0.331	1.328	1.379	7.270	39.46	0.805	3.406	1.589
16	0.387	0.387	0.387	0.387	0.407	0.417	1.696	1.739	9.026	49.42	0.815	3.422	1.586

Gage	D_1	D_2	D_3	D_4
	in	in	in	in
22	1066	9685	20004	32019
20	817	7411	15306	23907
18	542	4889	10096	15769
16	393	3537	7304	11408

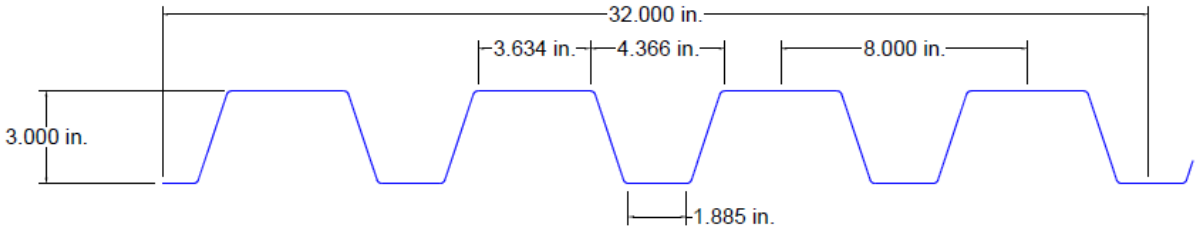
R	w_{tf}	w_{bf}	Fy	Fu
in.	in.	in.	ksi	ksi
0.1496	3.126	1.331	50	65

TABLE 3: RDB-36 and FDB-36 Web-Crippling (1.5-inch B- Deck)

Reactions at Supports Based on Web-Crippling - 1 Flange Loading											
Gage No.	t (in.)	Condition	Allowable Reactions - ASD Ω_w (lbs/ft)					Factored Reactions - LRFD ϕ_w (lbs/ft)				
			Bearing Length on support (in.)					Bearing Length on support (in.)				
			1	1.5	2	3	4	1	1.5	2	3	4
22	0.0299	End	733	830	912	1050	1166	1121	1270	1395	1606	1784
		Interior	1152	1280	1388	1570	1723	1714	1904	2065	2335	2563
20	0.0359	End	1030	1161	1272	1459	1615	1575	1777	1947	2232	2472
		Interior	1634	1808	1955	2200	2407	2431	2690	2908	3273	3581
18	0.0478	End	1753	1964	2141	2438	2689	2683	3004	3275	3730	4114
		Interior	2823	3101	3335	3727	4058	4200	4613	4961	5544	6037
16	0.0598	End	2660	2962	3216	3644	4001	4069	4531	4921	5575	6121
		Interior	4329	4728	5065	5629	6100	6440	7034	7534	8373	9074

Reactions at Supports Based on Web-Crippling - 2 Flange Loading											
Gage No.	t (in.)	Condition	Allowable Reactions - ASD Ω_w (lbs/ft)					Factored Reactions - LRFD ϕ_w (lbs/ft)				
			Bearing Length on support (in.)					Bearing Length on support (in.)				
			1	1.5	2	3	4	1	1.5	2	3	4
22	0.0299	End	813	895	963	1079	1176	1244	1369	1474	1651	1800
		Interior	1388	1559	1704	1946	2150	2065	2319	2534	2894	3197
20	0.0359	End	1202	1317	1413	1576	1712	1839	2014	2162	2411	2620
		Interior	1989	2224	2422	2755	3035	2959	3308	3603	4097	4514
18	0.0478	End	2195	2388	2550	2823	3052	3359	3654	3902	4319	4670
		Interior	3479	3862	4185	4726	5183	5175	5744	6225	7030	7710
16	0.0598	End	3496	3782	4023	4428	4766	5349	5787	6156	6774	7291
		Interior	5375	5933	6403	7192	7852	7995	8825	9525	10699	11679

TABLE 4: RD3N-32 Section Properties (3-inch N-Deck)



Gage No.	t	w_{deck}	A_g	I_{xg}	$S_{x(t)}$	$S_{x(b)}$	$y_{(t)}$	$y_{(b)}$	r $(I_{xg}/A_g)^{0.5}$	h_w	Θ	K
	in.	psf	in^2/ft	in^4/ft	in^3/ft	in^3/ft	in.	in.	in.	in.	degrees	-
22	0.0299	1.933	0.569	0.832	0.611	0.498	1.360	1.670	1.210	2.926	71.50	N/A
20	0.0359	2.321	0.683	0.997	0.733	0.597	1.363	1.673	1.209	2.920	71.58	N/A
18	0.0478	3.093	0.910	1.331	0.973	0.793	1.369	1.679	1.210	2.908	71.74	N/A
16	0.0598	3.871	1.139	1.669	1.213	0.990	1.375	1.685	1.211	2.896	71.91	N/A

Gage No.	I_{e+}	I_{e-}	I_{d+} / I_{d-} Uniform Load $I_d = (2I_e+I_{xg})/3$		S_{e+}	S_{e-}	M_{n+} F_y*S_{e+}	M_{n-} F_y*S_{e-}	V_n Section G2.1	T_n $F_y* A_g$	AISI S310 Fig D2.1-1 & C1.6-1		
											e	f	w
	in^4/ft	in^4/ft	in^4/ft	in^4/ft	in^3/ft	in^3/ft	k-ft/ft	k-ft/ft	k/ft	k/ft	in	in	in
22	0.705	0.780	0.747	0.797	0.357	0.390	1.488	1.626	4.114	28.43	1.072	3.893	3.163
20	0.885	0.964	0.922	0.975	0.458	0.498	1.908	2.076	6.262	34.14	1.076	3.902	3.162
18	1.256	1.316	1.281	1.321	0.681	0.725	2.839	3.020	10.177	45.48	1.085	3.920	3.159
16	1.631	1.661	1.644	1.664	0.934	0.958	3.893	3.992	14.171	56.93	1.094	3.938	3.156

Gage No.	D_1	D_2	D_3	D_4
	in	in	in	in
22	2818	30957	64442	103405
20	2158	23655	49240	77703
18	1426	15560	32387	51107
16	1035	11240	23392	36913

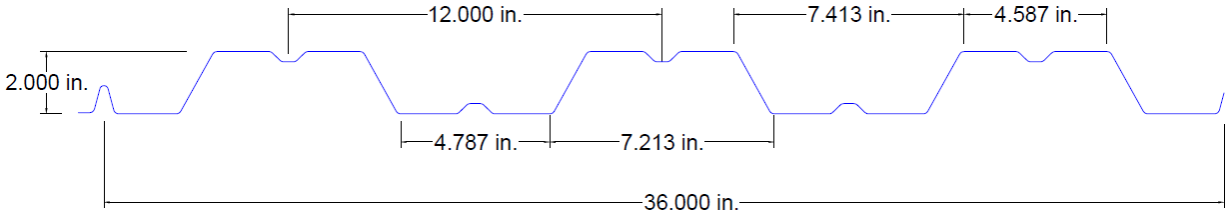
R	w_{tf}	w_{bf}	Fy	Fu
in.	in.	in.	ksi	ksi
0.1496	3.634	1.885	50	65

TABLE 5: RD3N-32 Web-Crippling (3-inch N-Deck)

Reactions at Supports Based on Web-Crippling - 1 Flange Loading														
Gage No.	t (in.)	Condition	Allowable Reactions - ASD Ω_w (lbs/ft)						Factored Reactions - LRFD ϕ_w (lbs/ft)					
			Bearing Length on support (in.)						Bearing Length on support (in.)					
			1	1.5	2	3	4	6	1	1.5	2	3	4	6
22	0.0299	End	502	568	624	719	798	931	767	869	955	1099	1221	1425
		Interior	860	955	1036	1172	1286	1477	1279	1421	1541	1743	1913	2197
20	0.0359	End	712	803	880	1009	1117	1299	1089	1229	1346	1543	1709	1988
		Interior	1220	1350	1459	1643	1798	2057	1815	2008	2171	2444	2674	3060
18	0.0478	End	1228	1375	1499	1707	1883	2177	1879	2104	2294	2612	2881	3331
		Interior	2109	2316	2491	2784	3031	3446	3137	3445	3705	4142	4509	5126
16	0.0598	End	1877	2091	2270	2572	2826	3253	2872	3199	3474	3935	4324	4977
		Interior	3234	3532	3783	4205	4560	5156	4810	5254	5627	6254	6783	7670

Reactions at Supports Based on Web-Crippling - 2 Flange Loading														
Gage No.	t (in.)	Condition	Allowable Reactions - ASD Ω_w (lbs/ft)						Factored Reactions - LRFD ϕ_w (lbs/ft)					
			Bearing Length on support (in.)						Bearing Length on support (in.)					
			1	1.5	2	3	4	6	1	1.5	2	3	4	6
22	0.0299	End	509	560	603	675	736	839	778	857	923	1033	1127	1283
		Interior	973	1093	1194	1364	1507	1747	1448	1626	1777	2029	2242	2599
20	0.0359	End	770	843	905	1009	1097	1244	1178	1290	1385	1544	1678	1903
		Interior	1404	1570	1710	1945	2143	2475	2089	2336	2544	2893	3187	3681
18	0.0478	End	1447	1574	1681	1860	2011	2265	2213	2408	2571	2846	3077	3466
		Interior	2479	2751	2982	3367	3693	4239	3687	4093	4435	5009	5493	6305
16	0.0598	End	2344	2536	2697	2969	3197	3581	3586	3880	4127	4542	4892	5479
		Interior	3851	4251	4588	5153	5630	6430	5728	6323	6824	7666	8375	9564

TABLE 6: FD2W-36 Section Properties (2-inch Composite Deck)



Gage No.	t	w_{deck}	A_g	I_{xg}	$S_{x(t)}$	$S_{x(b)}$	$y_{(t)}$	$y_{(b)}$	r $(I_{xg}/A_g)^{0.5}$	h_w	Θ	K
	in.	psf	in^2/ft	in^4/ft	in^3/ft	in^3/ft	in.	in.	in.	in.	degrees	-
22	0.0299	1.577	0.464	0.327	0.311	0.337	1.057	0.973	0.839	2.099	60.75	1.00
20	0.0359	1.893	0.557	0.393	0.372	0.404	1.060	0.976	0.841	2.094	60.84	1.00
18	0.0478	2.520	0.741	0.523	0.493	0.534	1.065	0.983	0.840	2.082	61.01	1.00
16	0.0598	3.152	0.927	0.657	0.614	0.663	1.070	0.990	0.842	2.071	61.18	1.00

Gage No.	I_{e+}	I_{e-}	I_{d+}	I_{d-}	S_{e+}	S_{e-}	M_{n+}	M_{n-}	V_n	T_n	AISI S310 Fig D2.1-1 & C1.6-1		
			Uniform Load $I_d = (2I_e+I_{xg})/3$				F_y*S_{e+}	F_y*S_{e-}	Section G2.1	$F_y* A_g$	e	f	w
	in^4/ft	in^4/ft	in^4/ft	in^4/ft	in^3/ft	in^3/ft	k-ft/ft	k-ft/ft	k/ft	k/ft	in	in	in
22	0.310	0.303	0.316	0.311	0.240	0.256	1.001	1.065	2.718	23.18	2.499	4.798	2.292
20	0.390	0.380	0.391	0.384	0.315	0.332	1.311	1.385	3.603	27.84	2.503	4.805	2.290
18	0.523	0.523	0.523	0.523	0.472	0.487	1.968	2.029	5.223	37.06	2.510	4.820	2.287
16	0.657	0.657	0.657	0.657	0.614	0.612	2.557	2.551	6.509	46.35	2.517	4.835	2.283

Gage No.	D_1	D_2	D_3	D_4
	in	in	in	in
22	1489	22888	48386	78055
20	1138	17447	36882	59622
18	748	11421	24140	39023
16	540	8209	17350	28046

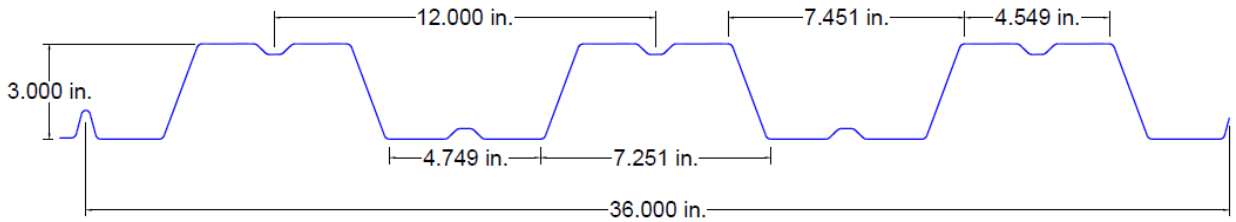
R	w_{tf}	w_{bf}	Fy	Fu
in.	in.	in.	ksi	ksi
0.1496	4.587	4.787	50	65

TABLE 7: FD2W-36 Web-Crippling (2-inch Composite Deck)

Reactions at Supports Based on Web-Crippling - 1 Flange Loading													
Gage No.	t (in.)	Condition	Allowable Reactions - ASD Ω_w (lbs/ft)						Factored Reactions - LRFD ϕ_w (lbs/ft)					
			Bearing Length on support (in.)						Bearing Length on support (in.)					
			1	1.5	2	3	4	6	1	1.5	2	3	4	6
22	0.0299	End	323	366	402	463	514	600	494	560	615	708	787	918
		Interior	531	590	640	723	794	912	789	877	951	1076	1180	1356
20	0.0359	End	456	515	564	646	716	833	698	788	863	989	1095	1274
		Interior	753	833	901	1014	1109	1269	1120	1239	1340	1508	1650	1888
18	0.0478	End	782	876	955	1088	1199	1387	1197	1340	1461	1664	1835	2122
		Interior	1301	1429	1537	1718	1871	2127	1936	2126	2287	2556	2783	3163
16	0.0598	End	1191	1326	1440	1632	1793	2064	1822	2029	2204	2497	2744	3158
		Interior	1996	2180	2335	2595	2814	3182	2969	3242	3473	3860	4186	4734

Reactions at Supports Based on Web-Crippling - 2 Flange Loading													
Gage No.	t (in.)	Condition	Allowable Reactions - ASD Ω_w (lbs/ft)						Factored Reactions - LRFD ϕ_w (lbs/ft)					
			Bearing Length on support (in.)						Bearing Length on support (in.)					
			1	1.5	2	3	4	6	1	1.5	2	3	4	6
22	0.0299	End	343	378	407	456	497	566	525	578	623	697	760	866
		Interior	619	696	760	868	959	1112	921	1035	1131	1291	1427	1654
20	0.0359	End	513	562	603	673	731	829	785	860	923	1029	1119	1269
		Interior	891	996	1085	1234	1359	1570	1325	1482	1614	1835	2022	2335
18	0.0478	End	950	1034	1104	1222	1321	1488	1454	1582	1689	1870	2022	2277
		Interior	1565	1738	1883	2127	2332	2677	2328	2585	2801	3163	3469	3982
16	0.0598	End	1526	1651	1756	1933	2082	2331	2335	2526	2687	2957	3185	3567
		Interior	2425	2677	2889	3246	3546	4049	3608	3982	4298	4828	5274	6024

TABLE 8: FD3W-36 Section Properties (3-inch Composite Deck)



Gage No.	t	w_{deck}	A_g	I_{xg}	$S_{x(t)}$	$S_{x(b)}$	$y_{(t)}$	$y_{(b)}$	r $(I_{xg}/A_g)^{0.5}$	h_w	Θ	K
	in.	psf	in^2/ft	in^4/ft	in^3/ft	in^3/ft	in.	in.	in.	in.	degrees	-
22	0.0299	1.757	0.517	0.800	0.507	0.553	1.581	1.449	1.244	2.975	69.47	1.00
20	0.0359	2.110	0.620	0.963	0.608	0.662	1.583	1.453	1.246	2.969	69.55	1.00
18	0.0478	2.809	0.826	1.283	0.807	0.878	1.588	1.460	1.246	2.957	69.70	1.00
16	0.0598	3.514	1.034	1.603	1.007	1.093	1.593	1.467	1.246	2.945	69.85	1.00

Gage No.	I_{e+}	I_{e-}	I_{d+}	I_{d-}	S_{e+}	S_{e-}	M_{n+}	M_{n-}	V_n	T_n	AISI S310 Fig D2.1-1 & C1.6-1		
			Uniform Load $I_d = (2I_e+I_{xg})/3$				F_y*S_{e+}	F_y*S_{e-}	Section G2.1	$F_y* A_g$	e	f	w
	in^4/ft	in^4/ft	in^4/ft	in^4/ft	in^3/ft	in^3/ft	k-ft/ft	k-ft/ft	k/ft	k/ft	in	in	in
22	0.760	0.747	0.773	0.764	0.403	0.431	1.677	1.794	2.732	25.84	2.499	4.798	3.203
20	0.953	0.933	0.957	0.943	0.524	0.557	2.183	2.319	4.178	31.02	2.503	4.806	3.202
18	1.283	1.277	1.283	1.279	0.783	0.799	3.262	3.328	6.797	41.31	2.512	4.824	3.199
16	1.603	1.603	1.603	1.603	1.007	1.005	4.194	4.186	9.472	51.68	2.521	4.841	3.196

Gage No.	D_1	D_2	D_3	D_4
	in	in	in	in
22	2903	43741	92432	149093
20	2219	33359	70490	113911
18	1461	21858	46182	74628
16	1056	15726	33222	53684

R	w_{tf}	w_{bf}	Fy	Fu
in.	in.	in.	ksi	ksi
0.1496	4.549	4.749	50	65

TABLE 9: FD3W-36 Web-Crippling (3-inch Composite Deck)

Reactions at Supports Based on Web-Crippling - 1 Flange Loading													
Gage No.	t (in.)	Condition	Allowable Reactions - ASD Ω_w (lbs/ft)						Factored Reactions - LRFD ϕ_w (lbs/ft)					
			Bearing Length on support (in.)						Bearing Length on support (in.)					
			1	1.5	2	3	4	6	1	1.5	2	3	4	6
22	0.0299	End	329	373	410	472	524	611	504	571	627	722	802	936
		Interior	566	629	682	771	846	972	842	935	1014	1147	1259	1446
20	0.0359	End	468	527	578	662	734	853	715	807	884	1013	1122	1305
		Interior	803	889	961	1081	1183	1354	1195	1322	1429	1608	1760	2014
18	0.0478	End	807	904	985	1122	1237	1431	1234	1382	1507	1717	1893	2189
		Interior	1388	1525	1640	1833	1995	2268	2065	2268	2439	2726	2968	3374
16	0.0598	End	1234	1374	1492	1690	1858	2138	1888	2102	2283	2586	2842	3271
		Interior	2129	2325	2490	2768	3002	3394	3166	3458	3704	4117	4465	5049

Reactions at Supports Based on Web-Crippling - 2 Flange Loading													
Gage No.	t (in.)	Condition	Allowable Reactions - ASD Ω_w (lbs/ft)						Factored Reactions - LRFD ϕ_w (lbs/ft)					
			Bearing Length on support (in.)						Bearing Length on support (in.)					
			1	1.5	2	3	4	6	1	1.5	2	3	4	6
22	0.0299	End	333	367	395	442	482	549	510	561	604	677	738	840
		Interior	639	718	785	896	990	1148	951	1068	1167	1333	1473	1707
20	0.0359	End	504	553	593	661	719	815	772	845	908	1012	1100	1247
		Interior	923	1032	1124	1278	1408	1626	1373	1535	1672	1901	2095	2419
18	0.0478	End	949	1032	1102	1220	1319	1486	1452	1579	1687	1867	2019	2273
		Interior	1629	1809	1960	2214	2428	2786	2424	2691	2916	3293	3611	4145
16	0.0598	End	1538	1664	1770	1948	2098	2350	2354	2546	2708	2981	3210	3596
		Interior	2532	2795	3017	3388	3702	4228	3766	4157	4487	5040	5506	6289

Table 10a: FDB-36 (1.5-inch Composite) with 3.5" Total Slab Thickness NWC (145 pcf)

Max Unshored Spans	Gage No.	1-Span	2-Span	3-Span
	22	6' - 7"	7' - 9"	7' - 10"
	20	7' - 11"	9' - 3"	9' - 4"
	18	9' - 1"	10' - 11"	11' - 3"
	16	9' - 9"	12' - 2"	11' - 10"

Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
22	ASD, W/Ω	552	451	374	314	266	228	196	170	149	130	114	101	89	79	70	
	LRFD, ϕW	830	679	565	476	405	348	301	262	230	203	179	159	141	126	113	
	L/360	917	689	531	417	334	272	224	187	157	134	115	99	86	75	66	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 2867 plf / LRFD, ϕSn = 4587 plf																
	G' (kip/in)	1965	1961	1957	1955	1952	1950	1947	1945	1943	1942	1941	1939	1938	1936	1935	
Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
20	ASD, W/Ω	650	532	442	372	316	271	234	204	179	157	139	123	109	97	87	
	LRFD, ϕW	976	800	666	562	479	412	358	313	275	243	215	192	171	153	138	
	L/360	985	740	570	448	359	292	241	201	169	144	123	106	93	81	71	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 2909 plf / LRFD, ϕSn = 4654 plf																
	G' (kip/in)	1973	1968	1964	1962	1958	1955	1952	1950	1948	1947	1945	1943	1942	1940	1939	
Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
18	ASD, W/Ω	741	671	583	492	420	361	314	274	241	213	189	168	151	135	121	
	LRFD, ϕW	1122	1016	881	745	637	550	478	419	370	328	292	261	235	211	191	
	L/360	1109	833	642	505	404	329	271	226	190	162	139	120	104	91	80	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 2992 plf / LRFD, ϕSn = 4787 plf																
	G' (kip/in)	1987	1981	1975	1973	1969	1965	1962	1958	1956	1955	1953	1951	1949	1947	1945	
Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
16	ASD, W/Ω	731	661	603	554	484	417	362	317	279	247	220	197	176	158	143	
	LRFD, ϕW	1106	1002	915	842	733	633	552	484	428	380	339	304	273	246	223	
	L/360	1220	916	706	555	444	361	298	248	209	178	152	132	115	100	88	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 3074 plf / LRFD, ϕSn = 4919 plf																
	G' (kip/in)	1999	1992	1986	1983	1978	1974	1970	1966	1963	1962	1960	1957	1955	1953	1951	

Note: The required number of fasteners for chords and collectors shall be based on the diaphragm shear transfer required per foot of deck, regardless of whether the chord or collector is oriented parallel or perpendicular to the deck flutes. Additional fasteners will likely be required depending on the design shear demand. See the General Notes for details.

Individual Fastener Values (lbs per connection)				
3/4" Arc Spot Welds	No. 22 gage	No. 20 gage	No. 18 gage	No. 16 gage
ASD	832	1164	2182	2683
LRFD	1281	1793	3360	4132

Table 10b: FDB-36 (1.5-inch Composite) with 4" Total Slab Thickness, NWC (145 pcf)

Max Unshored Spans	Gage No.	1-Span	2-Span	3-Span
	22	6' - 3"	7' - 4"	7' - 5"
	20	7' - 6"	8' - 9"	8' - 10"
	18	8' - 7"	10' - 4"	10' - 8"
	16	9' - 3"	11' - 7"	11' - 5"

Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
22	ASD, W/Ω	696	569	472	396	337	288	249	216	189	166	146	129	114	101	90	
	LRFD, ϕW	1046	856	713	600	512	440	381	332	292	257	228	202	180	161	144	
	L/360	1363	1024	789	620	497	404	333	277	234	199	170	147	128	112	99	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 3393 plf / LRFD, ϕSn = 5429 plf																
	G' (kip/in)	2441	2436	2433	2431	2428	2425	2423	2420	2418	2418	2416	2414	2413	2412	2410	
Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
20	ASD, W/Ω	821	672	559	471	401	344	298	259	227	200	177	157	140	125	111	
	LRFD, ϕW	1233	1011	842	711	607	523	454	397	349	309	274	244	219	196	176	
	L/360	1463	1099	846	666	533	433	357	298	251	213	183	158	137	120	106	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 3435 plf / LRFD, ϕSn = 5496 plf																
	G' (kip/in)	2449	2443	2439	2437	2434	2430	2428	2425	2423	2422	2420	2419	2417	2415	2414	
Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
18	ASD, W/Ω	908	822	724	611	522	450	390	341	300	266	236	211	188	169	152	
	LRFD, ϕW	1373	1244	1088	920	787	680	592	519	458	406	362	324	291	263	237	
	L/360	1643	1234	951	748	599	487	401	334	282	240	205	177	154	135	119	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 3517 plf / LRFD, ϕSn = 5628 plf																
	G' (kip/in)	2462	2456	2451	2448	2444	2440	2437	2434	2431	2430	2428	2426	2424	2422	2420	
Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
16	ASD, W/Ω	895	810	739	679	624	538	468	410	362	321	286	255	229	206	186	
	LRFD, ϕW	1354	1227	1121	1031	944	816	712	625	553	491	439	393	354	320	290	
	L/360	1805	1356	1045	822	658	535	441	367	309	263	226	195	170	148	131	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 3600 plf / LRFD, ϕSn = 5760 plf																
	G' (kip/in)	2475	2467	2461	2458	2453	2449	2445	2442	2438	2438	2435	2432	2430	2428	2426	

Note: The required number of fasteners for chords and collectors shall be based on the diaphragm shear transfer required per foot of deck, regardless of whether the chord or collector is oriented parallel or perpendicular to the deck flutes. Additional fasteners will likely be required depending on the design shear demand. See the General Notes for details.

Individual Fastener Values (lbs per connection)				
3/4" Arc Spot Welds	No. 22 gage	No. 20 gage	No. 18 gage	No. 16 gage
ASD	832	1164	2182	2683
LRFD	1281	1793	3360	4132

Table 10c: FDB-36 (1.5-inch Composite) with 4.5" Total Slab Thickness NWC (145 pcf)

Max Unshored Spans	Gage No.	1-Span	2-Span	3-Span
	22	6' - 0"	7' - 0"	7' - 1"
	20	7' - 2"	8' - 4"	8' - 5"
	18	8' - 3"	9' - 10"	10' - 2"
	16	8' - 11"	11' - 0"	11' - 0"

Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
22	ASD, W/Ω	847	692	575	483	411	352	304	264	231	203	179	158	140	125	111	
	LRFD, ϕW	1272	1042	867	731	623	536	465	406	356	315	279	248	221	198	178	
	L/360	1936	1455	1121	881	706	574	473	394	332	282	242	209	182	159	140	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 3919 plf / LRFD, ϕSn = 6270 plf																
	G' (kip/in)	2916	2912	2908	2906	2903	2900	2898	2896	2894	2893	2891	2890	2888	2887	2886	
Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
20	ASD, W/Ω	1002	820	682	575	490	421	365	318	279	246	217	193	172	154	138	
	LRFD, ϕW	1503	1233	1027	868	741	639	555	485	427	378	336	300	269	241	217	
	L/360	2075	1559	1201	945	756	615	507	422	356	303	259	224	195	171	150	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 3961 plf / LRFD, ϕSn = 6337 plf																
	G' (kip/in)	2924	2919	2914	2912	2909	2906	2903	2901	2898	2898	2896	2894	2892	2891	2889	
Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
18	ASD, W/Ω	1090	987	887	749	640	552	479	420	369	327	291	260	233	209	188	
	LRFD, ϕW	1648	1494	1332	1127	964	833	726	637	562	499	445	399	359	324	293	
	L/360	2327	1748	1347	1059	848	689	568	474	399	339	291	251	219	191	168	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 4043 plf / LRFD, ϕSn = 6469 plf																
	G' (kip/in)	2938	2931	2926	2924	2919	2916	2912	2909	2906	2906	2903	2901	2899	2897	2896	
Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
16	ASD, W/Ω	1074	973	888	816	755	660	574	504	444	394	351	314	282	255	230	
	LRFD, ϕW	1625	1472	1345	1238	1145	999	872	766	677	602	538	483	436	394	357	
	L/360	2553	1918	1478	1162	931	757	623	520	438	372	319	276	240	210	185	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 4126 plf / LRFD, ϕSn = 6602 plf																
	G' (kip/in)	2950	2943	2936	2934	2929	2924	2920	2917	2914	2913	2910	2908	2906	2903	2902	

Note: The required number of fasteners for chords and collectors shall be based on the diaphragm shear transfer required per foot of deck, regardless of whether the chord or collector is oriented parallel or perpendicular to the deck flutes. Additional fasteners will likely be required depending on the design shear demand. See the General Notes for details.

Individual Fastener Values (lbs per connection)				
3/4" Arc Spot Welds	No. 22 gage	No. 20 gage	No. 18 gage	No. 16 gage
ASD	832	1164	2182	2683
LRFD	1281	1793	3360	4132

Table 10d: FDB-36 (1.5-inch Composite) with 5" Total Slab Thickness NWC (145 pcf)

Max Unshored Spans	Gage No.	1-Span	2-Span	3-Span
	22	5' - 9"	6' - 9"	6' - 9"
	20	6' - 10"	8' - 0"	8' - 1"
	18	7' - 11"	9' - 5"	9' - 9"
	16	8' - 7"	10' - 7"	10' - 7"

Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
22	ASD, W/Ω	1002	820	681	573	487	418	361	314	275	242	213	189	168	149	133	
	LRFD, ϕW	1505	1234	1027	866	739	636	552	482	423	374	332	295	264	236	212	
	L/360	2652	1992	1535	1207	966	786	647	540	455	387	332	286	249	218	192	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 4445 plf / LRFD, ϕSn = 7111 plf																
	G' (kip/in)	3392	3387	3383	3382	3378	3376	3373	3371	3369	3368	3367	3365	3364	3362	3361	
Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
20	ASD, W/Ω	1187	972	809	682	581	500	433	378	332	293	259	230	206	184	165	
	LRFD, ϕW	1782	1462	1219	1030	880	759	659	577	508	450	400	358	321	288	260	
	L/360	2838	2132	1642	1292	1034	841	693	578	487	414	355	306	266	233	205	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 4486 plf / LRFD, ϕSn = 7178 plf																
	G' (kip/in)	3399	3394	3390	3388	3384	3381	3378	3376	3374	3373	3371	3369	3368	3366	3365	
Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
18	ASD, W/Ω	1287	1166	1041	880	752	648	564	493	435	385	342	306	274	247	222	
	LRFD, ϕW	1946	1764	1572	1330	1138	984	857	753	665	590	527	472	425	384	347	
	L/360	3175	2386	1838	1445	1157	941	775	646	544	463	397	343	298	261	230	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 4569 plf / LRFD, ϕSn = 7310 plf																
	G' (kip/in)	3413	3407	3401	3399	3395	3391	3388	3385	3382	3381	3379	3377	3375	3373	3371	
Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
16	ASD, W/Ω	1269	1149	1049	964	892	781	680	597	527	467	417	373	336	303	274	
	LRFD, ϕW	1919	1739	1589	1462	1353	1183	1032	907	802	714	638	573	517	468	424	
	L/360	3481	2615	2014	1584	1269	1031	850	708	597	507	435	376	327	286	252	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 4652 plf / LRFD, ϕSn = 7443 plf																
	G' (kip/in)	3425	3418	3412	3409	3404	3400	3396	3392	3389	3388	3386	3383	3381	3379	3377	

Note: The required number of fasteners for chords and collectors shall be based on the diaphragm shear transfer required per foot of deck, regardless of whether the chord or collector is oriented parallel or perpendicular to the deck flutes. Additional fasteners will likely be required depending on the design shear demand. See the General Notes for details.

Individual Fastener Values (lbs per connection)				
3/4" Arc Spot Welds	No. 22 gage	No. 20 gage	No. 18 gage	No. 16 gage
ASD	832	1164	2182	2683
LRFD	1281	1793	3360	4132

Table 10e: FDB-36 (1.5-inch Composite) with 6" Total Slab Thickness NWC (145 pcf)

Max Unshored Spans	Gage No.	1-Span	2-Span	3-Span
	22	5' - 4"	6' - 3"	6' - 4"
	20	6' - 4"	7' - 5"	7' - 6"
	18	7' - 5"	8' - 9"	9' - 1"
	16	8' - 0"	9' - 10"	9' - 10"

Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
22	ASD, W/Ω	1278	1045	868	731	622	534	461	402	352	309	273	242	215	191	171	
	LRFD, ϕW	1928	1581	1316	1111	947	816	708	619	544	481	426	380	340	304	274	
	L/360	4568	3432	2643	2079	1665	1353	1115	930	783	666	571	493	429	375	330	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 5496 plf / LRFD, ϕSn = 8794 plf																
	G' (kip/in)	4342	4338	4334	4332	4329	4326	4324	4322	4320	4319	4317	4316	4314	4313	4312	
Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
20	ASD, W/Ω	1518	1244	1035	873	744	640	555	485	426	376	333	296	264	237	212	
	LRFD, ϕW	2287	1878	1566	1323	1131	975	848	743	655	580	516	461	414	372	336	
	L/360	4871	3660	2819	2217	1775	1443	1189	992	835	710	609	526	457	400	352	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 5538 plf / LRFD, ϕSn = 8861 plf																
	G' (kip/in)	4350	4345	4341	4339	4335	4332	4329	4327	4324	4324	4322	4320	4318	4317	4315	
Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
18	ASD, W/Ω	1728	1565	1347	1138	973	839	730	640	564	500	445	398	357	321	290	
	LRFD, ϕW	2611	2367	2032	1720	1473	1273	1110	975	861	765	683	613	552	498	452	
	L/360	5427	4077	3141	2470	1978	1608	1325	1105	931	791	678	586	510	446	393	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 5621 plf / LRFD, ϕSn = 8993 plf																
	G' (kip/in)	4364	4357	4352	4350	4345	4342	4338	4335	4333	4332	4329	4327	4325	4324	4322	
Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
16	ASD, W/Ω	1703	1542	1408	1295	1184	1023	892	783	691	614	548	491	442	399	361	
	LRFD, ϕW	2573	2332	2132	1962	1789	1549	1352	1189	1052	937	838	753	679	615	559	
	L/360	5935	4459	3434	2701	2163	1758	1449	1208	1018	865	742	641	557	488	429	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 5703 plf / LRFD, ϕSn = 9125 plf																
	G' (kip/in)	4376	4369	4362	4360	4355	4350	4346	4343	4340	4339	4336	4334	4332	4330	4328	

Note: The required number of fasteners for chords and collectors shall be based on the diaphragm shear transfer required per foot of deck, regardless of whether the chord or collector is oriented parallel or perpendicular to the deck flutes. Additional fasteners will likely be required depending on the design shear demand. See the General Notes for details.

Individual Fastener Values (lbs per connection)				
3/4" Arc Spot Welds	No. 22 gage	No. 20 gage	No. 18 gage	No. 16 gage
ASD	832	1164	2182	2683
LRFD	1281	1793	3360	4132

Table 10f: FDB-36 (1.5-inch Composite) with 6.75" Total Slab Thickness NWC (145 pcf)

Max Unshored Spans	Gage No.	1-Span	2-Span	3-Span
	22	5' - 2"	5' - 11"	6' - 0"
	20	6' - 1"	7' - 0"	7' - 1"
	18	7' - 1"	8' - 4"	8' - 7"
	16	7' - 8"	9' - 4"	9' - 6"

Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
22	ASD, W/Ω	1483	1213	1008	848	722	620	536	467	409	360	318	282	250	223	199	
	LRFD, ϕW	2238	1835	1528	1289	1100	947	822	719	632	558	496	442	395	354	318	
	L/360	6486	4873	3754	2952	2364	1922	1584	1320	1112	946	811	700	609	533	469	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 6285 plf / LRFD, ϕSn = 10056 plf																
	G' (kip/in)	5055	5051	5047	5045	5042	5039	5037	5035	5033	5032	5030	5029	5027	5026	5025	
Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
20	ASD, W/Ω	1766	1447	1205	1016	866	746	647	565	496	438	388	346	309	276	248	
	LRFD, ϕW	2662	2185	1822	1540	1316	1135	988	865	762	676	601	538	482	434	392	
	L/360	6900	5184	3993	3140	2514	2044	1684	1404	1183	1006	862	745	648	567	499	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 6327 plf / LRFD, ϕSn = 10123 plf																
	G' (kip/in)	5063	5058	5054	5052	5048	5045	5042	5040	5037	5037	5035	5033	5031	5030	5028	
Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
18	ASD, W/Ω	2081	1885	1576	1332	1139	983	855	749	661	586	521	466	419	377	340	
	LRFD, ϕW	3143	2846	2377	2013	1724	1491	1300	1141	1009	897	801	718	647	585	530	
	L/360	7660	5755	4433	3487	2792	2270	1870	1559	1313	1117	958	827	719	630	554	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 6409 plf / LRFD, ϕSn = 10255 plf																
	G' (kip/in)	5077	5071	5065	5063	5058	5055	5051	5048	5046	5045	5043	5040	5038	5037	5035	
Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
16	ASD, W/Ω	2068	1873	1711	1574	1394	1205	1051	922	815	724	646	580	522	471	427	
	LRFD, ϕW	3123	2832	2588	2383	2106	1823	1592	1400	1240	1104	988	888	801	726	659	
	L/360	8359	6280	4838	3805	3046	2477	2041	1701	1433	1219	1045	903	785	687	605	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 6492 plf / LRFD, ϕSn = 10387 plf																
	G' (kip/in)	5089	5082	5075	5073	5068	5063	5060	5056	5053	5052	5049	5047	5045	5043	5041	

Note: The required number of fasteners for chords and collectors shall be based on the diaphragm shear transfer required per foot of deck, regardless of whether the chord or collector is oriented parallel or perpendicular to the deck flutes. Additional fasteners will likely be required depending on the design shear demand. See the General Notes for details.

Individual Fastener Values (lbs per connection)				
3/4" Arc Spot Welds	No. 22 gage	No. 20 gage	No. 18 gage	No. 16 gage
ASD	832	1164	2182	2683
LRFD	1281	1793	3360	4132

Table 10g: FDB-36 (1.5-inch Composite) with 3.5" Total Slab Thickness LWC (110 pcf)

Max Unshored Spans	Gage No.	1-Span	2-Span	3-Span
	22	7' - 1"	8' - 4"	8' - 5"
	20	8' - 6"	9' - 6"	9' - 10"
	18	9' - 10"	11' - 2"	11' - 7"
	16	10' - 6"	12' - 6"	12' - 7"

Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
22	ASD, W/Ω	527	431	359	302	257	221	191	166	146	128	114	101	90	80	71	
	LRFD, ϕW	791	649	540	456	389	335	291	255	224	198	176	157	140	126	113	
	L/360	720	541	416	328	262	213	176	146	123	105	90	78	68	59	52	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 2234 plf / LRFD, ϕSn = 3574 plf																
	G' (kip/in)	1965	1961	1957	1955	1952	1950	1947	1945	1943	1942	1941	1939	1938	1936	1935	
Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
20	ASD, W/Ω	617	505	421	355	303	260	226	197	173	153	136	121	108	97	87	
	LRFD, ϕW	924	759	633	535	457	394	343	300	265	235	209	187	168	151	136	
	L/360	777	584	450	354	283	230	190	158	133	113	97	84	73	64	56	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 2282 plf / LRFD, ϕSn = 3651 plf																
	G' (kip/in)	1973	1968	1964	1962	1958	1955	1952	1950	1948	1947	1945	1943	1942	1940	1939	
Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
18	ASD, W/Ω	748	678	590	499	427	368	321	281	248	220	196	176	158	142	129	
	LRFD, ϕW	1130	1025	889	753	645	558	487	428	378	337	301	270	243	220	200	
	L/360	880	661	509	401	321	261	215	179	151	128	110	95	83	72	64	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 2376 plf / LRFD, ϕSn = 3802 plf																
	G' (kip/in)	1987	1981	1975	1973	1969	1965	1962	1958	1956	1955	1953	1951	1949	1947	1945	
Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
16	ASD, W/Ω	738	668	611	562	491	424	370	325	287	255	227	204	183	166	150	
	LRFD, ϕW	1115	1010	924	850	741	642	560	493	436	388	347	312	282	255	232	
	L/360	971	729	562	442	354	288	237	198	166	142	121	105	91	80	70	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 2471 plf / LRFD, ϕSn = 3953 plf																
	G' (kip/in)	1999	1992	1986	1983	1978	1974	1970	1966	1963	1962	1960	1957	1955	1953	1951	

Note: The required number of fasteners for chords and collectors shall be based on the diaphragm shear transfer required per foot of deck, regardless of whether the chord or collector is oriented parallel or perpendicular to the deck flutes. Additional fasteners will likely be required depending on the design shear demand. See the General Notes for details.

Individual Fastener Values (lbs per connection)				
3/4" Arc Spot Welds	No. 22 gage	No. 20 gage	No. 18 gage	No. 16 gage
ASD	832	1164	2182	2683
LRFD	1281	1793	3360	4132

Table 10h: FDB-36 (1.5-inch Composite) with 4" Total Slab Thickness LWC (110 pcf)

Max Unshored Spans	Gage No.	1-Span	2-Span	3-Span
	22	6' - 9"	7' - 11"	8' - 0"
	20	8' - 1"	9' - 6"	9' - 7"
	18	9' - 4"	11' - 2"	11' - 6"
	16	10' - 0"	12' - 6"	12' - 1"

Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
22	ASD, W/Ω	667	547	455	383	326	281	243	212	186	164	145	129	115	103	92	
	LRFD, ϕW	1001	821	685	578	494	426	370	324	285	252	224	200	179	161	145	
	L/360	1066	801	617	485	388	316	260	217	183	155	133	115	100	88	77	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 2628 plf / LRFD, ϕSn = 4205 plf																
	G' (kip/in)	2441	2436	2433	2431	2428	2425	2423	2420	2418	2418	2416	2414	2413	2412	2410	
Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
20	ASD, W/Ω	783	642	535	451	385	332	288	252	221	196	174	155	139	124	112	
	LRFD, ϕW	1173	963	804	680	581	502	437	383	338	300	267	239	215	193	175	
	L/360	1150	864	666	523	419	341	281	234	197	168	144	124	108	95	83	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 2676 plf / LRFD, ϕSn = 4282 plf																
	G' (kip/in)	2449	2443	2439	2437	2434	2430	2428	2425	2423	2422	2420	2419	2417	2415	2414	
Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
18	ASD, W/Ω	917	821	685	580	496	428	373	327	288	255	228	204	183	165	149	
	LRFD, ϕW	1384	1230	1028	871	746	645	563	494	437	389	347	312	281	254	230	
	L/360	1300	977	752	592	474	385	317	265	223	190	163	140	122	107	94	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 2771 plf / LRFD, ϕSn = 4433 plf																
	G' (kip/in)	2462	2456	2451	2448	2444	2440	2437	2434	2431	2430	2428	2426	2424	2422	2420	
Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
16	ASD, W/Ω	904	819	748	688	632	547	477	419	370	329	294	264	238	215	195	
	LRFD, ϕW	1365	1237	1131	1041	954	827	722	635	563	501	449	404	365	331	301	
	L/360	1432	1076	829	652	522	424	350	292	246	209	179	155	135	118	104	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 2865 plf / LRFD, ϕSn = 4584 plf																
	G' (kip/in)	2475	2467	2461	2458	2453	2449	2445	2442	2438	2438	2435	2432	2430	2428	2426	

Note: The required number of fasteners for chords and collectors shall be based on the diaphragm shear transfer required per foot of deck, regardless of whether the chord or collector is oriented parallel or perpendicular to the deck flutes. Additional fasteners will likely be required depending on the design shear demand. See the General Notes for details.

Individual Fastener Values (lbs per connection)				
3/4" Arc Spot Welds	No. 22 gage	No. 20 gage	No. 18 gage	No. 16 gage
ASD	832	1164	2182	2683
LRFD	1281	1793	3360	4132

Table 10i: FDB-36 (1.5-inch Composite) with 4.75" Total Slab Thickness LWC (110 pcf)

Max Unshored Spans	Gage No.	1-Span	2-Span	3-Span
	22	6' - 4"	7' - 5"	7' - 6"
	20	7' - 8"	8' - 11"	9' - 0"
	18	8' - 9"	10' - 6"	10' - 10"
	16	9' - 5"	11' - 9"	11' - 7"

Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
22	ASD, W/Ω	892	731	608	513	437	376	327	285	250	221	196	175	156	140	125	
	LRFD, ϕW	1337	1097	915	773	661	570	496	434	383	339	302	270	242	218	197	
	L/360	1770	1329	1024	805	645	524	432	360	303	258	221	191	166	145	128	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 3220 plf / LRFD, ϕSn = 5151 plf																
	G' (kip/in)	3154	3149	3146	3144	3141	3138	3136	3133	3131	3131	3129	3127	3126	3125	3123	

Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
20	ASD, W/Ω	1050	861	718	607	518	447	388	340	299	265	235	210	188	169	152	
	LRFD, ϕW	1572	1292	1079	913	781	675	588	516	455	404	361	323	290	262	237	
	L/360	1907	1433	1104	868	695	565	466	388	327	278	238	206	179	157	138	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 3268 plf / LRFD, ϕSn = 5228 plf																
	G' (kip/in)	3162	3157	3152	3150	3147	3144	3141	3138	3136	3135	3133	3132	3130	3128	3127	

Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
18	ASD, W/Ω	1198	1085	926	783	670	579	505	443	391	347	310	277	250	225	204	
	LRFD, ϕW	1807	1639	1387	1176	1008	872	761	669	592	527	471	423	382	346	314	
	L/360	2153	1618	1246	980	785	638	526	438	369	314	269	232	202	177	156	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 3362 plf / LRFD, ϕSn = 5379 plf																
	G' (kip/in)	3175	3169	3164	3161	3157	3153	3150	3147	3144	3143	3141	3139	3137	3135	3133	

Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
16	ASD, W/Ω	1181	1070	978	899	814	704	614	540	478	425	380	341	307	278	252	
	LRFD, ϕW	1782	1616	1478	1360	1222	1058	925	814	721	643	576	518	468	424	386	
	L/360	2370	1781	1372	1079	864	702	579	482	406	346	296	256	223	195	171	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 3457 plf / LRFD, ϕSn = 5531 plf																
	G' (kip/in)	3188	3180	3174	3171	3166	3162	3158	3155	3151	3151	3148	3145	3143	3141	3139	

Note: The required number of fasteners for chords and collectors shall be based on the diaphragm shear transfer required per foot of deck, regardless of whether the chord or collector is oriented parallel or perpendicular to the deck flutes. Additional fasteners will likely be required depending on the design shear demand. See the General Notes for details.

Individual Fastener Values (lbs per connection)				
3/4" Arc Spot Welds	No. 22 gage	No. 20 gage	No. 18 gage	No. 16 gage
ASD	832	1164	2182	2683
LRFD	1281	1793	3360	4132

Table 10j: FDB-36 (1.5-inch Composite) with 5.75" Total Slab Thickness LWC (110 pcf)

Max Unshored Spans	Gage No.	1-Span	2-Span	3-Span
	22	5' - 11"	6' - 11"	7' - 0"
	20	7' - 1"	8' - 3"	8' - 4"
	18	8' - 2"	9' - 9"	10' - 1"
	16	8' - 10"	10' - 11"	10' - 11"

Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
22	ASD, W/Ω	1206	989	824	695	593	511	444	388	341	302	268	239	214	192	172	
	LRFD, ϕW	1807	1484	1239	1047	896	773	673	590	521	462	411	368	331	298	269	
	L/360	3105	2333	1797	1413	1132	920	758	632	532	453	388	335	292	255	225	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 4008 plf / LRFD, ϕSn = 6413 plf																
	G' (kip/in)	4105	4100	4096	4095	4091	4089	4086	4084	4082	4081	4080	4078	4077	4075	4074	
Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
20	ASD, W/Ω	1426	1170	976	825	705	609	529	464	409	362	323	288	259	233	210	
	LRFD, ϕW	2134	1754	1465	1240	1062	918	800	703	621	552	493	442	398	359	326	
	L/360	3340	2509	1933	1520	1217	990	815	680	573	487	417	361	314	274	242	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 4056 plf / LRFD, ϕSn = 6490 plf																
	G' (kip/in)	4112	4107	4103	4101	4097	4094	4091	4089	4087	4086	4084	4082	4081	4079	4078	
Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
18	ASD, W/Ω	1626	1474	1266	1072	918	794	692	608	537	477	426	382	344	311	282	
	LRFD, ϕW	2453	2225	1896	1608	1379	1194	1043	917	812	723	647	582	526	476	433	
	L/360	3761	2826	2177	1712	1371	1114	918	766	645	548	470	406	353	309	272	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 4151 plf / LRFD, ϕSn = 6641 plf																
	G' (kip/in)	4126	4120	4114	4112	4108	4104	4101	4098	4095	4094	4092	4090	4088	4086	4084	
Gage No.	Limit condition	Spans (ft)															
		5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
16	ASD, W/Ω	1602	1452	1328	1222	1121	970	847	745	660	587	526	472	426	386	351	
	LRFD, ϕW	2418	2193	2005	1847	1681	1457	1274	1122	995	887	795	716	647	588	535	
	L/360	4137	3108	2394	1883	1508	1226	1010	842	709	603	517	447	389	340	299	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 4246 plf / LRFD, ϕSn = 6793 plf																
	G' (kip/in)	4138	4131	4125	4122	4117	4113	4109	4105	4102	4101	4099	4096	4094	4092	4090	

Note: The required number of fasteners for chords and collectors shall be based on the diaphragm shear transfer required per foot of deck, regardless of whether the chord or collector is oriented parallel or perpendicular to the deck flutes. Additional fasteners will likely be required depending on the design shear demand. See the General Notes for details.

Individual Fastener Values (lbs per connection)				
3/4" Arc Spot Welds	No. 22 gage	No. 20 gage	No. 18 gage	No. 16 gage
ASD	832	1164	2182	2683
LRFD	1281	1793	3360	4132

Table 11a: FD2W-36 (2-inch Composite) with 4" Total Slab Thickness NWC (145 pcf)

Max Unshored Spans	Gage No.	1-Span	2-Span	3-Span
	22	7' - 9"	8' - 11"	9' - 0"
	20	9' - 3"	10' - 4"	10' - 8"
	18	10' - 4"	12' - 6"	12' - 4"
	16	11' - 1"	13' - 10"	13' - 0"

Gage No.	Limit condition	Spans (ft)														
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13
		ASD & LRFD - Available Superimposed Load Capacity, W (psf)														
22	ASD, W/Ω	449	377	320	274	236	205	179	156	138	121	107	95	84	74	66
	LRFD, ϕW	679	572	487	418	362	315	277	244	215	191	170	152	136	122	109
	L/360	846	666	533	433	357	298	251	213	183	158	137	120	106	94	83
		36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness														
		ASD, Sn/Ω = 3392 plf / LRFD, ϕSn = 5426 plf														
	G' (kip/in)	1957	1955	1952	1949	1947	1944	1942	1942	1940	1938	1937	1936	1934	1934	1933
Gage No.	Limit condition	Spans (ft)														
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13
		ASD & LRFD - Available Superimposed Load Capacity, W (psf)														
20	ASD, W/Ω	534	449	382	328	284	247	216	190	168	149	132	118	105	94	84
	LRFD, ϕW	805	680	580	499	433	378	333	294	261	232	208	186	167	151	136
	L/360	904	711	569	463	381	318	268	228	195	169	147	128	113	100	89
		36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness														
		ASD, Sn/Ω = 3440 plf / LRFD, ϕSn = 5504 plf														
	G' (kip/in)	1963	1961	1958	1954	1952	1949	1947	1946	1944	1942	1941	1939	1938	1938	1937
Gage No.	Limit condition	Spans (ft)														
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13
		ASD & LRFD - Available Superimposed Load Capacity, W (psf)														
18	ASD, W/Ω	681	575	490	422	366	320	281	248	220	196	176	157	141	127	115
	LRFD, ϕW	1029	870	744	642	559	490	432	383	341	305	274	247	223	202	183
	L/360	1007	792	634	516	425	354	298	254	218	188	163	143	126	111	99
		36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness														
		ASD, Sn/Ω = 3536 plf / LRFD, ϕSn = 5657 plf														
	G' (kip/in)	1974	1972	1968	1964	1960	1957	1955	1954	1952	1950	1948	1946	1944	1944	1942
Gage No.	Limit condition	Spans (ft)														
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13
		ASD & LRFD - Available Superimposed Load Capacity, W (psf)														
16	ASD, W/Ω	802	677	578	499	434	380	334	296	263	235	211	190	171	155	140
	LRFD, ϕW	1210	1024	876	757	660	579	512	454	405	363	327	295	267	243	221
	L/360	1101	866	694	564	465	387	326	277	238	206	179	156	138	122	108
		36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness														
		ASD, Sn/Ω = 3632 plf / LRFD, ϕSn = 5811 plf														
	G' (kip/in)	1984	1982	1977	1972	1968	1965	1962	1961	1958	1956	1954	1952	1950	1949	1948

Note: The required number of fasteners for chords and collectors shall be based on the diaphragm shear transfer required per foot of deck, regardless of whether the chord or collector is oriented parallel or perpendicular to the deck flutes. Additional fasteners will likely be required depending on the design shear demand. See the General Notes for details.

Individual Fastener Values (lbs per connection)				
3/4" Arc Spot Welds	No. 22 gage	No. 20 gage	No. 18 gage	No. 16 gage
ASD	832	1164	2182	2683
LRFD	1281	1793	3360	4132

Table 11b: FD2W-36 (2-inch Composite) with 4.5" Total Slab Thickness NWC (145 pcf)

Max Unshored Spans	Gage No.	1-Span	2-Span	3-Span
	22	7' - 4"	8' - 6"	8' - 6"
	20	8' - 9"	9' - 10"	10' - 2"
	18	9' - 10"	11' - 11"	11' - 11"
	16	10' - 7"	13' - 4"	12' - 7"

Gage No.	Limit condition	Spans (ft)															
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
22	ASD, W/Ω	541	455	386	331	285	248	216	190	167	147	130	116	103	91	81	
	LRFD, ϕW	818	689	587	504	437	381	334	295	261	232	206	184	165	148	133	
	L/360	1183	930	745	606	499	416	350	298	255	221	192	168	148	131	116	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 3917 plf / LRFD, ϕSn = 6268 plf																
	G' (kip/in)	2432	2430	2427	2424	2422	2420	2418	2417	2415	2414	2412	2411	2410	2410	2408	
Gage No.	Limit condition	Spans (ft)															
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
20	ASD, W/Ω	644	542	461	396	343	299	262	230	204	181	161	143	128	114	103	
	LRFD, ϕW	971	820	700	603	523	458	402	356	316	282	252	226	203	183	165	
	L/360	1261	992	794	646	532	444	374	318	272	235	205	179	158	139	124	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 3966 plf / LRFD, ϕSn = 6345 plf																
	G' (kip/in)	2438	2436	2433	2430	2427	2424	2422	2422	2420	2418	2416	2415	2413	2413	2412	
Gage No.	Limit condition	Spans (ft)															
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
18	ASD, W/Ω	824	696	594	511	444	388	341	302	268	239	214	192	173	156	140	
	LRFD, ϕW	1245	1053	901	778	677	594	524	465	414	371	333	300	271	246	223	
	L/360	1403	1103	883	718	592	493	416	353	303	262	228	199	175	155	138	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 4061 plf / LRFD, ϕSn = 6498 plf																
	G' (kip/in)	2450	2447	2443	2439	2436	2433	2430	2429	2427	2425	2423	2421	2419	2419	2418	
Gage No.	Limit condition	Spans (ft)															
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
16	ASD, W/Ω	982	830	710	612	533	467	411	365	325	290	260	234	212	191	174	
	LRFD, ϕW	1482	1254	1074	929	810	711	628	558	499	447	403	364	330	300	273	
	L/360	1532	1205	964	784	646	539	454	386	331	286	249	218	191	169	151	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 4157 plf / LRFD, ϕSn = 6652 plf																
	G' (kip/in)	2460	2457	2452	2448	2444	2440	2437	2436	2434	2431	2429	2427	2425	2425	2423	

Note: The required number of fasteners for chords and collectors shall be based on the diaphragm shear transfer required per foot of deck, regardless of whether the chord or collector is oriented parallel or perpendicular to the deck flutes. Additional fasteners will likely be required depending on the design shear demand. See the General Notes for details.

Individual Fastener Values (lbs per connection)				
3/4" Arc Spot Welds	No. 22 gage	No. 20 gage	No. 18 gage	No. 16 gage
ASD	832	1164	2182	2683
LRFD	1281	1793	3360	4132

Table 11c: FD2W-36 (2-inch Composite) with 5" Total Slab Thickness NWC (145 pcf)

Max Unshored Spans	Gage No.	1-Span	2-Span	3-Span
	22	7' - 1"	8' - 1"	8' - 2"
	20	8' - 4"	9' - 5"	9' - 8"
	18	9' - 6"	11' - 5"	11' - 7"
	16	10' - 2"	12' - 9"	12' - 3"

Gage No.	Limit condition	Spans (ft)														
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
22	ASD, W/Ω	631	531	451	386	333	290	253	222	195	173	153	136	121	107	95
	LRFD, ϕW	958	808	688	592	513	448	393	346	307	273	243	217	195	175	157
	L/360	1600	1258	1007	819	675	563	474	403	346	298	260	227	200	177	157
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness															
	ASD, Sn/Ω = 4443 plf / LRFD, ϕSn = 7109 plf															
	G' (kip/in)	2907	2906	2903	2900	2897	2895	2893	2892	2891	2889	2888	2886	2885	2885	2884
Gage No.	Limit condition	Spans (ft)														
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
20	ASD, W/Ω	750	632	538	462	400	349	305	269	238	211	188	168	150	134	120
	LRFD, ϕW	1136	959	819	705	613	536	471	417	370	330	296	265	239	215	195
	L/360	1703	1340	1073	872	719	599	505	429	368	318	276	242	213	188	167
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness															
	ASD, Sn/Ω = 4492 plf / LRFD, ϕSn = 7186 plf															
	G' (kip/in)	2914	2912	2908	2905	2902	2900	2897	2897	2895	2893	2892	2890	2889	2888	2887
Gage No.	Limit condition	Spans (ft)														
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
18	ASD, W/Ω	967	817	697	601	522	457	402	355	316	282	252	226	204	184	166
	LRFD, ϕW	1461	1236	1057	913	795	697	616	546	487	436	392	353	320	290	263
	L/360	1891	1487	1191	968	798	665	560	476	409	353	307	269	236	209	186
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness															
	ASD, Sn/Ω = 4587 plf / LRFD, ϕSn = 7339 plf															
	G' (kip/in)	2925	2923	2918	2915	2911	2908	2905	2905	2902	2900	2898	2896	2895	2895	2893
Gage No.	Limit condition	Spans (ft)														
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
16	ASD, W/Ω	1163	983	841	726	632	554	488	433	386	345	310	279	252	228	207
	LRFD, ϕW	1753	1485	1272	1100	959	843	745	662	592	531	478	433	392	357	325
	L/360	2062	1622	1299	1056	870	725	611	520	445	385	335	293	258	228	203
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness															
	ASD, Sn/Ω = 4683 plf / LRFD, ϕSn = 7493 plf															
	G' (kip/in)	2935	2932	2927	2923	2919	2916	2912	2912	2909	2907	2904	2902	2900	2900	2898

Note: The required number of fasteners for chords and collectors shall be based on the diaphragm shear transfer required per foot of deck, regardless of whether the chord or collector is oriented parallel or perpendicular to the deck flutes. Additional fasteners will likely be required depending on the design shear demand. See the General Notes for details.

Individual Fastener Values (lbs per connection)				
3/4" Arc Spot Welds	No. 22 gage	No. 20 gage	No. 18 gage	No. 16 gage
ASD	832	1164	2182	2683
LRFD	1281	1793	3360	4132

Table 11d: FD2W-36 (2-inch Composite) with 5.5" Total Slab Thickness NWC (145 pcf)

Max Unshored Spans	Gage No.	1-Span	2-Span	3-Span
	22	6' - 9"	7' - 9"	7' - 10"
	20	8' - 0"	9' - 1"	9' - 4"
	18	9' - 2"	11' - 0"	11' - 4"
	16	9' - 10"	12' - 3"	11' - 11"

Gage No.	Limit condition	Spans (ft)															
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
22	ASD, W/Ω	719	604	513	440	380	330	288	253	223	197	175	155	138	123	109	
	LRFD, ϕW	1091	919	784	674	584	510	448	395	350	311	277	248	222	200	180	
	L/360	2106	1656	1326	1078	888	741	624	530	455	393	342	299	263	233	207	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 4969 plf / LRFD, ϕSn = 7950 plf																
	G' (kip/in)	3383	3381	3378	3375	3373	3370	3368	3368	3366	3365	3363	3362	3360	3360	3359	
Gage No.	Limit condition	Spans (ft)															
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
20	ASD, W/Ω	856	721	614	528	457	398	349	308	272	242	215	192	172	154	138	
	LRFD, ϕW	1296	1094	934	805	700	612	539	477	424	378	338	304	274	247	223	
	L/360	2239	1761	1410	1146	944	787	663	564	484	418	363	318	280	248	220	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 5017 plf / LRFD, ϕSn = 8028 plf																
	G' (kip/in)	3389	3387	3384	3380	3378	3375	3373	3372	3370	3369	3367	3365	3364	3364	3363	
Gage No.	Limit condition	Spans (ft)															
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
18	ASD, W/Ω	1110	938	801	690	600	525	462	409	363	324	291	261	235	212	192	
	LRFD, ϕW	1677	1419	1214	1049	913	801	707	628	560	502	451	407	368	334	304	
	L/360	2481	1952	1563	1270	1047	873	735	625	536	463	403	352	310	274	244	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 5113 plf / LRFD, ϕSn = 8181 plf																
	G' (kip/in)	3400	3398	3394	3390	3387	3383	3381	3380	3378	3376	3374	3372	3370	3370	3369	
Gage No.	Limit condition	Spans (ft)															
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
16	ASD, W/Ω	1343	1136	972	839	730	641	565	501	447	400	359	324	293	265	241	
	LRFD, ϕW	2025	1715	1470	1271	1109	975	862	766	685	615	554	501	455	414	377	
	L/360	2703	2126	1702	1384	1140	951	801	681	584	504	439	384	338	299	266	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 5209 plf / LRFD, ϕSn = 8334 plf																
	G' (kip/in)	3410	3408	3403	3398	3394	3391	3388	3387	3384	3382	3380	3378	3376	3376	3374	

Note: The required number of fasteners for chords and collectors shall be based on the diaphragm shear transfer required per foot of deck, regardless of whether the chord or collector is oriented parallel or perpendicular to the deck flutes. Additional fasteners will likely be required depending on the design shear demand. See the General Notes for details.

Individual Fastener Values (lbs per connection)				
3/4" Arc Spot Welds	No. 22 gage	No. 20 gage	No. 18 gage	No. 16 gage
ASD	832	1164	2182	2683
LRFD	1281	1793	3360	4132

Table 11e: FD2W-36 (2-inch Composite) with 6" Total Slab Thickness NWC (145 pcf)

Max Unshored Spans	Gage No.	1-Span	2-Span	3-Span
	22	6' - 6"	7' - 6"	7' - 6"
	20	7' - 9"	8' - 9"	8' - 11"
	18	8' - 10"	10' - 7"	10' - 11"
	16	9' - 6"	11' - 10"	11' - 8"

Gage No.	Limit condition	Spans (ft)															
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
22	ASD, W/Ω	806	677	576	493	426	371	324	284	251	222	196	174	155	138	123	
	LRFD, ϕW	1223	1031	879	756	655	572	502	443	393	349	312	279	250	225	202	
	L/360	2709	2130	1706	1387	1143	953	803	682	585	505	440	385	339	300	266	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 5495 plf / LRFD, ϕSn = 8792 plf																
	G' (kip/in)	3858	3856	3853	3851	3848	3846	3844	3843	3841	3840	3838	3837	3836	3836	3835	

Gage No.	Limit condition	Spans (ft)															
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
20	ASD, W/Ω	962	810	690	593	514	448	393	346	307	272	243	217	194	174	156	
	LRFD, ϕW	1456	1230	1050	905	787	688	606	536	477	425	381	342	308	278	252	
	L/360	2876	2262	1811	1473	1213	1012	852	725	621	537	467	408	360	318	283	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 5543 plf / LRFD, ϕSn = 8869 plf																
	G' (kip/in)	3864	3863	3859	3856	3853	3850	3848	3848	3846	3844	3842	3841	3839	3839	3838	

Gage No.	Limit condition	Spans (ft)															
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
18	ASD, W/Ω	1254	1059	904	780	678	593	522	462	411	367	329	296	266	241	218	
	LRFD, ϕW	1892	1601	1370	1184	1032	905	799	710	633	567	510	460	417	378	344	
	L/360	3182	2503	2004	1629	1342	1119	943	802	687	594	516	452	398	352	313	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 5639 plf / LRFD, ϕSn = 9022 plf																
	G' (kip/in)	3876	3873	3869	3865	3862	3859	3856	3855	3853	3851	3849	3847	3846	3845	3844	

Gage No.	Limit condition	Spans (ft)															
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
16	ASD, W/Ω	1524	1289	**1103**	952	829	727	642	570	508	455	409	369	333	302	275	
	LRFD, ϕW	2297	1946	1667	1443	1259	1106	979	870	778	699	630	570	517	471	429	
	L/360	3462	2723	2180	1772	1460	1218	1026	872	748	646	562	492	433	383	340	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 5735 plf / LRFD, ϕSn = 9176 plf																
	G' (kip/in)	3886	3883	3878	3874	3870	3866	3863	3862	3860	3857	3855	3853	3851	3851	3849	

Note: The required number of fasteners for chords and collectors shall be based on the diaphragm shear transfer required per foot of deck, regardless of whether the chord or collector is oriented parallel or perpendicular to the deck flutes. Additional fasteners will likely be required depending on the design shear demand. See the General Notes for details.

Individual Fastener Values (lbs per connection)				
3/4" Arc Spot Welds	No. 22 gage	No. 20 gage	No. 18 gage	No. 16 gage
ASD	832	1164	2182	2683
LRFD	1281	1793	3360	4132

Table 11f: FD2W-36 (2-inch Composite) with 7.25" Total Slab Thickness NWC (145 pcf)

Max Unshored Spans	Gage No.	1-Span	2-Span	3-Span
	22	6' - 0"	6' - 11"	6' - 11"
	20	7' - 1"	8' - 0"	8' - 2"
	18	8' - 3"	9' - 9"	10' - 1"
	16	8' - 11"	10' - 11"	11' - 0"

Gage No.	Limit condition	Spans (ft)															
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
22	ASD, W/Ω	1024	861	732	628	542	472	412	362	319	283	251	223	198	177	158	
	LRFD, ϕW	1554	1310	1117	961	834	728	639	564	500	445	397	356	319	287	258	
	L/360	4697	3694	2958	2405	1982	1652	1392	1183	1015	876	762	667	587	519	462	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 6809 plf / LRFD, ϕSn = 10895 plf																
	G' (kip/in)	5047	5045	5042	5039	5036	5034	5032	5032	5030	5028	5027	5025	5024	5024	5023	
Gage No.	Limit condition	Spans (ft)															
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
20	ASD, W/Ω	1227	1034	881	757	656	573	502	443	392	349	311	278	249	223	201	
	LRFD, ϕW	1857	1569	1340	1155	1004	879	774	685	609	544	487	438	395	357	323	
	L/360	4970	3909	3130	2545	2097	1748	1473	1252	1073	927	807	706	621	550	489	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 6858 plf / LRFD, ϕSn = 10972 plf																
	G' (kip/in)	5053	5051	5047	5044	5041	5039	5037	5036	5034	5032	5031	5029	5028	5028	5026	
Gage No.	Limit condition	Spans (ft)															
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
18	ASD, W/Ω	1611	1361	1163	1003	872	764	673	596	530	474	425	382	344	311	282	
	LRFD, ϕW	2432	2058	1762	1523	1327	1165	1029	914	816	731	658	594	538	488	445	
	L/360	5472	4304	3446	2801	2308	1924	1621	1378	1182	1021	888	777	684	605	538	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 6953 plf / LRFD, ϕSn = 11125 plf																
	G' (kip/in)	5064	5062	5057	5054	5050	5047	5045	5044	5041	5039	5037	5036	5034	5034	5032	
Gage No.	Limit condition	Spans (ft)															
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
16	ASD, W/Ω	1975	1671	1430	1236	1077	945	834	741	661	592	533	481	435	395	359	
	LRFD, ϕW	2976	2522	2162	1871	1633	1436	1270	1131	1011	908	819	742	673	613	560	
	L/360	5935	4668	3738	3039	2504	2088	1759	1495	1282	1107	963	843	742	656	584	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 7049 plf / LRFD, ϕSn = 11279 plf																
	G' (kip/in)	5074	5071	5066	5062	5058	5055	5052	5051	5048	5046	5043	5041	5039	5039	5038	

Note: The required number of fasteners for chords and collectors shall be based on the diaphragm shear transfer required per foot of deck, regardless of whether the chord or collector is oriented parallel or perpendicular to the deck flutes. Additional fasteners will likely be required depending on the design shear demand. See the General Notes for details.

Individual Fastener Values (lbs per connection)				
3/4" Arc Spot Welds	No. 22 gage	No. 20 gage	No. 18 gage	No. 16 gage
ASD	832	1164	2182	2683
LRFD	1281	1793	3360	4132

Table 11g: FD2W-36 (2-inch Composite) with 4" Total Slab Thickness LWC (110 pcf)

Max Unshored Spans	Gage No.	1-Span	2-Span	3-Span
	22	8' - 5"	9' - 8"	9' - 9"
	20	10' - 0"	11' - 2"	11' - 7"
	18	11' - 2"	13' - 6"	13' - 1"
	16	11' - 9"	14' - 8"	13' - 10"

Gage No.	Limit condition	Spans (ft)														
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
22	ASD, W/Ω	436	367	313	269	233	203	178	157	138	123	109	98	87	78	70
	LRFD, ϕW	657	555	473	408	354	310	273	241	214	191	171	154	138	125	113
	L/360	654	514	412	335	276	230	194	165	141	122	106	93	82	72	64
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness															
	ASD, Sn/Ω = 2638 plf / LRFD, ϕSn = 4221 plf															
	G' (kip/in)	1957	1955	1952	1949	1947	1944	1942	1942	1940	1938	1937	1936	1934	1934	1933
Gage No.	Limit condition	Spans (ft)														
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
20	ASD, W/Ω	516	435	371	319	277	242	213	188	167	149	133	119	107	96	87
	LRFD, ϕW	775	655	560	484	421	369	325	288	257	230	206	185	167	152	138
	L/360	703	553	443	360	297	247	208	177	152	131	114	100	88	78	69
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness															
	ASD, Sn/Ω = 2693 plf / LRFD, ϕSn = 4309 plf															
	G' (kip/in)	1963	1961	1958	1954	1952	1949	1947	1946	1944	1942	1941	1939	1938	1938	1937
Gage No.	Limit condition	Spans (ft)														
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
18	ASD, W/Ω	690	583	499	431	375	329	290	257	229	205	184	166	150	136	123
	LRFD, ϕW	1040	881	754	653	569	500	442	393	351	315	284	257	233	212	193
	L/360	792	623	499	405	334	278	235	199	171	148	128	112	99	88	78
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness															
	ASD, Sn/Ω = 2802 plf / LRFD, ϕSn = 4484 plf															
	G' (kip/in)	1974	1972	1968	1964	1960	1957	1955	1954	1952	1950	1948	1946	1944	1944	1942
Gage No.	Limit condition	Spans (ft)														
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
16	ASD, W/Ω	810	686	587	508	442	388	343	305	272	244	220	198	180	163	149
	LRFD, ϕW	1220	1034	887	768	670	590	522	465	416	374	337	306	278	253	231
	L/360	871	685	548	446	367	306	258	219	188	162	141	124	109	96	86
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness															
	ASD, Sn/Ω = 2912 plf / LRFD, ϕSn = 4659 plf															
	G' (kip/in)	1984	1982	1977	1972	1968	1965	1962	1961	1958	1956	1954	1952	1950	1949	1948

Note: The required number of fasteners for chords and collectors shall be based on the diaphragm shear transfer required per foot of deck, regardless of whether the chord or collector is oriented parallel or perpendicular to the deck flutes. Additional fasteners will likely be required depending on the design shear demand. See the General Notes for details.

Individual Fastener Values (lbs per connection)				
3/4" Arc Spot Welds	No. 22 gage	No. 20 gage	No. 18 gage	No. 16 gage
ASD	832	1164	2182	2683
LRFD	1281	1793	3360	4132

Table 11h: FD2W-36 (2-inch Composite) with 4.5" Total Slab Thickness LWC (110 pcf)

Max Unshored Spans	Gage No.	1-Span	2-Span	3-Span
	22	8' - 0"	9' - 3"	9' - 4"
	20	9' - 7"	10' - 9"	11' - 1"
	18	10' - 8"	12' - 11"	12' - 8"
	16	11' - 5"	14' - 3"	13' - 5"

Gage No.	Limit condition	Spans (ft)															
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
22	ASD, W/Ω	527	444	378	325	282	246	216	190	168	149	133	119	107	96	86	
	LRFD, ϕW	793	670	572	493	429	375	330	292	260	232	208	187	168	152	137	
	L/360	910	716	573	466	384	320	270	229	197	170	148	129	114	101	90	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 3032 plf / LRFD, ϕSn = 4852 plf																
	G' (kip/in)	2432	2430	2427	2424	2422	2420	2418	2417	2415	2414	2412	2411	2410	2410	2408	
Gage No.	Limit condition	Spans (ft)															
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
20	ASD, W/Ω	623	526	449	387	336	294	258	228	203	181	162	145	130	118	106	
	LRFD, ϕW	937	792	678	585	509	447	394	349	311	279	250	226	204	185	168	
	L/360	978	769	616	501	413	344	290	246	211	183	159	139	122	108	96	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 3088 plf / LRFD, ϕSn = 4940 plf																
	G' (kip/in)	2438	2436	2433	2430	2427	2424	2422	2422	2420	2418	2416	2415	2413	2413	2412	
Gage No.	Limit condition	Spans (ft)															
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
18	ASD, W/Ω	804	680	582	502	437	384	338	300	268	239	215	194	175	159	144	
	LRFD, ϕW	1207	1022	875	757	661	580	513	456	408	366	330	298	271	246	224	
	L/360	1099	864	692	563	464	386	326	277	237	205	178	156	137	122	108	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 3197 plf / LRFD, ϕSn = 5115 plf																
	G' (kip/in)	2450	2447	2443	2439	2436	2433	2430	2429	2427	2425	2423	2421	2419	2419	2418	
Gage No.	Limit condition	Spans (ft)															
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
16	ASD, W/Ω	992	840	720	622	543	477	422	375	335	300	271	245	222	202	184	
	LRFD, ϕW	1494	1267	1086	941	822	723	641	571	511	459	415	376	342	312	285	
	L/360	1206	949	760	618	509	424	357	304	261	225	196	171	151	133	119	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 3306 plf / LRFD, ϕSn = 5290 plf																
	G' (kip/in)	2460	2457	2452	2448	2444	2440	2437	2436	2434	2431	2429	2427	2425	2425	2423	

Note: The required number of fasteners for chords and collectors shall be based on the diaphragm shear transfer required per foot of deck, regardless of whether the chord or collector is oriented parallel or perpendicular to the deck flutes. Additional fasteners will likely be required depending on the design shear demand. See the General Notes for details.

Individual Fastener Values (lbs per connection)				
3/4" Arc Spot Welds	No. 22 gage	No. 20 gage	No. 18 gage	No. 16 gage
ASD	832	1164	2182	2683
LRFD	1281	1793	3360	4132

Table 11i: FD2W-36 (2-inch Composite) with 5.25" Total Slab Thickness LWC (110 pcf)

Max Unshored Spans	Gage No.	1-Span	2-Span	3-Span
	22	7' - 7"	8' - 9"	8' - 9"
	20	9' - 0"	10' - 1"	10' - 5"
	18	10' - 1"	12' - 3"	12' - 2"
	16	10' - 10"	13' - 8"	12' - 10"

Gage No.	Limit condition	Spans (ft)															
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
22	ASD, W/Ω	671	566	482	415	360	314	276	243	216	192	171	153	137	123	111	
	LRFD, ϕW	1010	853	729	629	547	479	422	374	332	297	266	240	216	195	177	
	L/360	1410	1109	888	722	595	496	418	355	305	263	229	200	176	156	139	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 3624 plf / LRFD, ϕSn = 5798 plf																
	G' (kip/in)	3145	3143	3140	3137	3135	3133	3131	3130	3128	3127	3125	3124	3123	3123	3122	
Gage No.	Limit condition	Spans (ft)															
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
20	ASD, W/Ω	795	672	574	494	430	376	331	293	260	232	208	187	168	152	137	
	LRFD, ϕW	1195	1011	865	747	651	571	504	447	399	357	321	290	262	238	216	
	L/360	1513	1190	953	775	638	532	448	381	327	282	245	215	189	167	149	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 3679 plf / LRFD, ϕSn = 5887 plf																
	G' (kip/in)	3151	3150	3146	3143	3140	3137	3135	3135	3133	3131	3129	3128	3126	3126	3125	
Gage No.	Limit condition	Spans (ft)															
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
18	ASD, W/Ω	1030	872	746	644	561	492	435	386	344	308	277	250	227	206	187	
	LRFD, ϕW	1544	1308	1121	970	847	744	659	586	524	471	425	384	349	318	290	
	L/360	1696	1334	1068	868	715	596	502	427	366	316	275	241	212	188	167	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 3788 plf / LRFD, ϕSn = 6061 plf																
	G' (kip/in)	3163	3160	3156	3152	3149	3146	3143	3142	3140	3138	3136	3134	3132	3132	3131	
Gage No.	Limit condition	Spans (ft)															
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
16	ASD, W/Ω	1254	1062	910	787	687	604	534	475	424	381	343	311	282	257	234	
	LRFD, ϕW	1877	1592	1365	1183	1034	910	806	718	643	579	523	474	431	394	360	
	L/360	1860	1463	1171	952	784	654	551	468	402	347	302	264	232	206	183	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 3898 plf / LRFD, ϕSn = 6236 plf																
	G' (kip/in)	3173	3170	3165	3161	3157	3153	3150	3149	3147	3144	3142	3140	3138	3138	3136	

Note: The required number of fasteners for chords and collectors shall be based on the diaphragm shear transfer required per foot of deck, regardless of whether the chord or collector is oriented parallel or perpendicular to the deck flutes. Additional fasteners will likely be required depending on the design shear demand. See the General Notes for details.

Individual Fastener Values (lbs per connection)				
3/4" Arc Spot Welds	No. 22 gage	No. 20 gage	No. 18 gage	No.16 gage
ASD	832	1164	2182	2683
LRFD	1281	1793	3360	4132

Table 11j: FD2W-36 (2-inch Composite) with 6.25" Total Slab Thickness LWC (110 pcf)

Max Unshored Spans	Gage No.	1-Span	2-Span	3-Span
	22	7' - 1"	8' - 2"	8' - 2"
	20	8' - 5"	9' - 5"	9' - 9"
	18	9' - 6"	11' - 5"	11' - 7"
	16	10' - 2"	12' - 9"	12' - 3"

Gage No.	Limit condition	Spans (ft)														
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
22	ASD, W/Ω	865	729	622	536	465	406	357	315	280	249	222	199	179	161	145
	LRFD, ϕW	1307	1105	945	815	709	622	548	486	433	387	347	313	282	255	232
	L/360	2321	1826	1462	1188	979	816	688	585	501	433	377	330	290	257	228
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness															
	ASD, Sn/Ω = 4413 plf / LRFD, ϕSn = 7060 plf															
	G' (kip/in)	4096	4094	4091	4088	4086	4083	4081	4081	4079	4078	4076	4075	4073	4073	4072
Gage No.	Limit condition	Spans (ft)														
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
20	ASD, W/Ω	1030	870	744	641	558	488	430	381	339	303	271	244	220	199	180
	LRFD, ϕW	1555	1316	1126	974	848	745	658	584	521	467	421	380	344	312	284
	L/360	2484	1954	1564	1272	1048	874	736	626	537	464	403	353	311	275	244
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness															
	ASD, Sn/Ω = 4468 plf / LRFD, ϕSn = 7149 plf															
	G' (kip/in)	4102	4100	4097	4094	4091	4088	4086	4085	4083	4082	4080	4078	4077	4077	4076
Gage No.	Limit condition	Spans (ft)														
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
18	ASD, W/Ω	1340	1135	971	840	732	643	568	504	450	404	363	328	297	270	246
	LRFD, ϕW	2019	1711	1467	1270	1109	975	864	769	688	618	558	505	459	418	382
	L/360	2778	2185	1749	1422	1172	977	823	700	600	518	451	395	347	307	273
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness															
	ASD, Sn/Ω = 4577 plf / LRFD, ϕSn = 7323 plf															
	G' (kip/in)	4113	4111	4107	4103	4100	4097	4094	4093	4091	4089	4087	4085	4083	4083	4082
Gage No.	Limit condition	Spans (ft)														
		6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
16	ASD, W/Ω	1629	1381	1184	1024	894	786	696	619	554	498	449	406	369	336	307
	LRFD, ϕW	2451	2079	1784	1547	1352	1190	1055	941	843	759	686	623	567	517	474
	L/360	3042	2393	1916	1558	1283	1070	901	766	657	568	494	432	380	336	299
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness															
	ASD, Sn/Ω = 4687 plf / LRFD, ϕSn = 7498 plf															
	G' (kip/in)	4123	4121	4116	4111	4107	4104	4101	4100	4097	4095	4093	4091	4089	4089	4087

Note: The required number of fasteners for chords and collectors shall be based on the diaphragm shear transfer required per foot of deck, regardless of whether the chord or collector is oriented parallel or perpendicular to the deck flutes. Additional fasteners will likely be required depending on the design shear demand. See the General Notes for details.

Individual Fastener Values (lbs per connection)				
3/4" Arc Spot Welds	No. 22 gage	No. 20 gage	No. 18 gage	No. 16 gage
ASD	832	1164	2182	2683
LRFD	1281	1793	3360	4132

Table 12a: FD3W-36 (3-inch Composite) with 5" Total Slab Thickness NWC (145 pcf)

Max Unshored Spans	Gage No.	1-Span	2-Span	3-Span
	22	10' - 2"	11' - 2"	11' - 6"
	20	11' - 11"	12' - 9"	13' - 2"
	18	12' - 9"	15' - 3"	14' - 11"
	16	13' - 5"	16' - 9"	15' - 9"

Gage No.	Limit condition	Spans (ft)														
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
22	ASD, W/Ω	310	270	236	207	183	162	143	128	114	101	90	81	72	64	57
	LRFD, ϕW	474	414	363	321	284	253	226	202	181	163	147	132	119	108	97
	L/360	650	542	456	388	333	287	250	219	192	170	151	135	121	109	99
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness															
	ASD, Sn/Ω = 3896 plf / LRFD, ϕSn = 6233 plf															
	G' (kip/in)	1946	1944	1942	1941	1939	1938	1936	1935	1934	1934	1933	1932	1931	1930	1929
Gage No.	Limit condition	Spans (ft)														
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
20	ASD, W/Ω	372	325	285	251	223	198	176	158	141	127	114	102	92	83	74
	LRFD, ϕW	567	496	437	387	344	307	275	247	223	201	182	165	149	136	123
	L/360	691	576	486	413	354	306	266	233	205	181	161	144	129	116	105
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness															
	ASD, Sn/Ω = 3938 plf / LRFD, ϕSn = 6301 plf															
	G' (kip/in)	1951	1948	1946	1945	1944	1942	1940	1939	1937	1937	1936	1935	1934	1933	1932
Gage No.	Limit condition	Spans (ft)														
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
18	ASD, W/Ω	491	430	379	335	298	266	239	215	194	175	158	144	130	118	108
	LRFD, ϕW	748	656	579	515	459	412	370	334	303	275	250	228	208	190	174
	L/360	768	640	539	458	393	340	295	258	227	201	179	160	143	129	116
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness															
	ASD, Sn/Ω = 4022 plf / LRFD, ϕSn = 6435 plf															
	G' (kip/in)	1959	1957	1954	1953	1951	1949	1947	1945	1944	1943	1942	1941	1939	1938	1937
Gage No.	Limit condition	Spans (ft)														
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
16	ASD, W/Ω	584	512	452	401	357	320	287	259	234	212	193	176	160	146	134
	LRFD, ϕW	886	779	689	613	548	492	443	401	364	331	302	276	253	232	213
	L/360	838	699	589	500	429	371	322	282	248	220	195	174	156	141	127
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness															
	ASD, Sn/Ω = 4106 plf / LRFD, ϕSn = 6569 plf															
	G' (kip/in)	1967	1964	1961	1960	1958	1955	1953	1951	1949	1949	1947	1946	1944	1943	1942

Note: The required number of fasteners for chords and collectors shall be based on the diaphragm shear transfer required per foot of deck, regardless of whether the chord or collector is oriented parallel or perpendicular to the deck flutes. Additional fasteners will likely be required depending on the design shear demand. See the General Notes for details.

Individual Fastener Values (lbs per connection)				
3/4" Arc Spot Welds	No. 22 gage	No. 20 gage	No. 18 gage	No. 16 gage
ASD	832	1164	2182	2683
LRFD	1281	1793	3360	4132

Table 12b: FD3W-36 (3-inch Composite) with 5.5" Total Slab Thickness NWC (145 pcf)

Max Unshored Spans	Gage No.	1-Span	2-Span	3-Span
	22	9' - 9"	10' - 8"	11' - 0"
	20	11' - 5"	12' - 2"	12' - 7"
	18	12' - 5"	14' - 7"	14' - 6"
	16	13' - 1"	16' - 3"	15' - 4"

Gage No.	Limit condition	Spans (ft)														
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
22	ASD, W/Ω	362	315	275	242	214	189	168	149	133	119	106	95	85	75	67
	LRFD, ϕW	552	482	424	374	332	296	264	236	212	191	172	155	140	127	114
	L/360	850	709	597	508	435	376	327	286	252	223	198	177	159	143	129
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness															
	ASD, Sn/Ω = 4421 plf / LRFD, ϕSn = 7074 plf															
	G' (kip/in)	2421	2419	2417	2416	2415	2413	2412	2410	2409	2409	2408	2407	2406	2405	2404
Gage No.	Limit condition	Spans (ft)														
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
20	ASD, W/Ω	434	379	333	294	260	231	206	184	165	148	133	120	108	97	88
	LRFD, ϕW	661	578	509	451	401	358	321	289	260	235	213	193	175	159	145
	L/360	903	753	634	539	463	400	347	304	268	237	211	188	169	152	137
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness															
	ASD, Sn/Ω = 4464 plf / LRFD, ϕSn = 7142 plf															
	G' (kip/in)	2426	2424	2421	2421	2419	2417	2416	2414	2413	2413	2411	2410	2409	2408	2407
Gage No.	Limit condition	Spans (ft)														
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
18	ASD, W/Ω	573	502	442	391	348	311	279	251	226	205	185	168	153	139	127
	LRFD, ϕW	867	761	672	597	533	478	430	388	351	319	290	265	242	221	203
	L/360	1001	834	703	598	512	443	385	337	297	262	233	208	187	168	152
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness															
	ASD, Sn/Ω = 4547 plf / LRFD, ϕSn = 7276 plf															
	G' (kip/in)	2435	2432	2429	2429	2426	2424	2422	2421	2419	2419	2417	2416	2415	2414	2412
Gage No.	Limit condition	Spans (ft)														
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
16	ASD, W/Ω	695	610	538	478	426	382	343	310	280	254	231	211	192	176	161
	LRFD, ϕW	1054	927	820	729	652	586	528	478	434	395	361	330	303	278	256
	L/360	1090	909	766	651	558	482	419	367	323	286	254	227	203	183	165
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness															
	ASD, Sn/Ω = 4632 plf / LRFD, ϕSn = 7411 plf															
	G' (kip/in)	2443	2439	2436	2436	2433	2431	2428	2426	2424	2424	2423	2421	2420	2418	2417

Note: The required number of fasteners for chords and collectors shall be based on the diaphragm shear transfer required per foot of deck, regardless of whether the chord or collector is oriented parallel or perpendicular to the deck flutes. Additional fasteners will likely be required depending on the design shear demand. See the General Notes for details.

Individual Fastener Values (lbs per connection)				
3/4" Arc Spot Welds	No. 22 gage	No. 20 gage	No. 18 gage	No. 16 gage
ASD	832	1164	2182	2683
LRFD	1281	1793	3360	4132

Table 12c: FD3W-36 (3-inch Composite) with 6" Total Slab Thickness NWC (145 pcf)

Max Unshored Spans	Gage No.	1-Span	2-Span	3-Span
	22	9' - 4"	9' - 10"	10' - 7"
	20	10' - 11"	11' - 8"	12' - 1"
	18	12' - 1"	14' - 0"	14' - 1"
	16	12' - 9"	15' - 9"	14' - 11"

Gage No.	Limit condition	Spans (ft)														
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
22	ASD, W/Ω	416	362	317	279	246	218	194	173	154	137	123	110	98	88	78
	LRFD, ϕW	635	555	487	431	382	340	304	273	245	220	199	179	162	147	133
	L/360	1089	908	765	650	557	482	419	367	323	285	254	227	203	183	165
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness															
	ASD, Sn/Ω = 4947 plf / LRFD, ϕSn = 7916 plf															
	G' (kip/in)	2896	2894	2892	2892	2890	2889	2887	2886	2885	2885	2883	2882	2881	2881	2880

Gage No.	Limit condition	Spans (ft)														
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
20	ASD, W/Ω	500	436	383	338	300	267	238	213	191	172	154	**139**	125	113	102
	LRFD, ϕW	760	665	586	519	462	413	370	333	300	271	246	223	203	184	168
	L/360	1155	963	812	690	592	511	444	389	342	303	269	240	216	194	175
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness															
	ASD, Sn/Ω = 4990 plf / LRFD, ϕSn = 7983 plf															
	G' (kip/in)	2901	2899	2897	2896	2894	2893	2891	2889	2888	2888	2887	2886	2885	2884	2883

Gage No.	Limit condition	Spans (ft)														
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
18	ASD, W/Ω	660	578	509	451	402	359	322	290	262	237	215	195	177	161	147
	LRFD, ϕW	998	876	774	688	614	550	496	448	406	368	335	306	280	256	235
	L/360	1278	1065	897	763	654	565	492	430	379	335	298	266	238	215	194
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness															
	ASD, Sn/Ω = 5073 plf / LRFD, ϕSn = 8117 plf															
	G' (kip/in)	2910	2907	2905	2904	2902	2900	2898	2896	2894	2894	2893	2891	2890	2889	2888

Gage No.	Limit condition	Spans (ft)														
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
16	ASD, W/Ω	806	707	625	555	495	444	399	360	326	296	269	246	224	205	188
	LRFD, ϕW	1222	1074	951	846	757	680	614	556	505	460	420	384	353	324	298
	L/360	1390	1159	976	830	712	615	535	468	412	364	324	289	259	233	211
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness															
	ASD, Sn/Ω = 5157 plf / LRFD, ϕSn = 8252 plf															
	G' (kip/in)	2918	2915	2912	2911	2908	2906	2904	2902	2900	2900	2898	2896	2895	2894	2892

Note: The required number of fasteners for chords and collectors shall be based on the diaphragm shear transfer required per foot of deck, regardless of whether the chord or collector is oriented parallel or perpendicular to the deck flutes. Additional fasteners will likely be required depending on the design shear demand. See the General Notes for details.

Individual Fastener Values (lbs per connection)				
3/4" Arc Spot Welds	No. 22 gage	No. 20 gage	No. 18 gage	No. 16 gage
ASD	832	1164	2182	2683
LRFD	1281	1793	3360	4132

Table 12d: FD3W-36 (3-inch Composite) with 6.5" Total Slab Thickness NWC (145 pcf)

Max Unshored Spans	Gage No.	1-Span	2-Span	3-Span
	22	8' - 11"	9' - 2"	10' - 1"
	20	10' - 6"	11' - 3"	11' - 8"
	18	11' - 9"	13' - 6"	13' - 9"
	16	12' - 5"	15' - 2"	14' - 7"

Gage No.	Limit condition	Spans (ft)															
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
22	ASD, W/Ω	472	411	360	317	280	248	221	197	176	157	141	126	113	101	90	
	LRFD, ϕW	721	630	554	489	434	387	346	310	279	251	227	205	185	168	152	
	L/360	1369	1141	962	818	701	606	527	461	406	359	319	285	255	230	208	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 5473 plf / LRFD, ϕSn = 8757 plf																
	G' (kip/in)	3372	3370	3368	3367	3365	3364	3362	3361	3360	3360	3359	3358	3357	3356	3355	
Gage No.	Limit condition	Spans (ft)															
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
20	ASD, W/Ω	568	496	436	385	341	304	271	243	218	196	177	159	144	130	117	
	LRFD, ϕW	863	756	666	590	525	470	421	379	342	309	280	255	232	211	192	
	L/360	1452	1210	1019	867	743	642	558	489	430	381	338	302	271	244	220	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 5515 plf / LRFD, ϕSn = 8825 plf																
	G' (kip/in)	3377	3374	3372	3372	3370	3368	3366	3365	3363	3363	3362	3361	3360	3359	3358	
Gage No.	Limit condition	Spans (ft)															
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
18	ASD, W/Ω	750	658	580	514	458	409	367	331	299	270	245	223	203	185	168	
	LRFD, ϕW	1134	996	880	782	699	627	564	510	462	420	383	349	320	293	269	
	L/360	1603	1336	1126	957	821	709	616	540	475	420	373	334	299	269	243	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 5599 plf / LRFD, ϕSn = 8959 plf																
	G' (kip/in)	3386	3383	3380	3379	3377	3375	3373	3371	3370	3370	3368	3367	3365	3364	3363	
Gage No.	Limit condition	Spans (ft)															
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
16	ASD, W/Ω	917	805	711	632	564	506	455	411	372	338	308	281	257	235	215	
	LRFD, ϕW	1389	1222	1082	963	862	775	699	633	575	524	479	438	402	370	341	
	L/360	1741	1452	1223	1040	892	770	670	586	516	457	406	362	325	292	264	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 5683 plf / LRFD, ϕSn = 9093 plf																
	G' (kip/in)	3393	3390	3387	3386	3384	3381	3379	3377	3375	3375	3373	3372	3370	3369	3368	

Note: The required number of fasteners for chords and collectors shall be based on the diaphragm shear transfer required per foot of deck, regardless of whether the chord or collector is oriented parallel or perpendicular to the deck flutes. Additional fasteners will likely be required depending on the design shear demand. See the General Notes for details.

Individual Fastener Values (lbs per connection)				
3/4" Arc Spot Welds	No. 22 gage	No. 20 gage	No. 18 gage	No. 16 gage
ASD	832	1164	2182	2683
LRFD	1281	1793	3360	4132

Table 12e: FD3W-36 (3-inch Composite) with 7.5" Total Slab Thickness NWC (145 pcf)

Max Unshored Spans	Gage No.	1-Span	2-Span	3-Span
	22	8' - 4"	8' - 0"	9' - 1"
	20	9' - 9"	10' - 6"	10' - 10"
	18	11' - 3"	12' - 8"	13' - 1"
	16	11' - 11"	14' - 2"	13' - 11"

Gage No.	Limit condition	Spans (ft)															
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
22	ASD, W/Ω	585	510	447	393	348	308	275	245	219	196	176	157	141	127	113	
	LRFD, ϕW	896	784	689	610	542	483	432	388	349	315	284	257	233	211	191	
	L/360	2070	1725	1453	1236	1060	915	796	697	613	543	482	431	386	348	314	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 6525 plf / LRFD, ϕSn = 10440 plf																
	G' (kip/in)	4322	4320	4318	4318	4316	4315	4313	4312	4311	4311	4309	4308	4308	4307	4306	
Gage No.	Limit condition	Spans (ft)															
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
20	ASD, W/Ω	704	615	541	478	424	378	337	302	272	245	221	199	180	163	147	
	LRFD, ϕW	1075	942	830	736	656	586	526	474	428	388	352	320	291	265	242	
	L/360	2190	1825	1538	1308	1121	968	842	737	649	574	510	456	409	368	332	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 6567 plf / LRFD, ϕSn = 10507 plf																
	G' (kip/in)	4327	4325	4323	4322	4320	4319	4317	4316	4314	4314	4313	4312	4311	4310	4309	
Gage No.	Limit condition	Spans (ft)															
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
18	ASD, W/Ω	929	814	718	637	567	508	456	411	371	336	305	278	253	231	211	
	LRFD, ϕW	1411	1239	1096	974	870	781	704	636	577	525	478	437	400	367	337	
	L/360	2411	2010	1693	1440	1234	1066	927	812	714	632	562	502	450	405	366	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 6651 plf / LRFD, ϕSn = 10641 plf																
	G' (kip/in)	4336	4333	4331	4330	4328	4326	4324	4322	4320	4320	4319	4317	4316	4315	4314	
Gage No.	Limit condition	Spans (ft)															
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
16	ASD, W/Ω	1139	1000	884	786	702	629	567	512	464	422	384	351	321	294	270	
	LRFD, ϕW	1725	1517	1344	1197	1071	963	870	788	716	653	597	547	502	462	426	
	L/360	2614	2180	1836	1561	1339	1156	1006	880	775	685	609	544	488	439	397	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 6735 plf / LRFD, ϕSn = 10776 plf																
	G' (kip/in)	4344	4341	4338	4337	4334	4332	4330	4328	4326	4326	4324	4323	4321	4320	4318	

Note: The required number of fasteners for chords and collectors shall be based on the diaphragm shear transfer required per foot of deck, regardless of whether the chord or collector is oriented parallel or perpendicular to the deck flutes. Additional fasteners will likely be required depending on the design shear demand. See the General Notes for details.

Individual Fastener Values (lbs per connection)				
3/4" Arc Spot Welds	No. 22 gage	No. 20 gage	No. 18 gage	No. 16 gage
ASD	832	1164	2182	2683
LRFD	1281	1793	3360	4132

Table 12f: FD3W-36 (3-inch Composite) with 8.25" Total Slab Thickness NWC (145 pcf)

Max Unshored Spans	Gage No.	1-Span	2-Span	3-Span
	22	7' - 6"	7' - 4"	8' - 4"
	20	9' - 4"	10' - 1"	10' - 5"
	18	10' - 11"	12' - 1"	12' - 6"
	16	11' - 7"	13' - 7"	13' - 7"

Gage No.	Limit condition	Spans (ft)															
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15
		ASD & LRFD - Available Superimposed Load Capacity, W (psf)														
22	ASD, W/Ω	663	578	507	446	395	350	312	278	249	223	200	179	161	144	129
	LRFD, ϕW	1016	889	782	692	615	548	491	440	396	358	323	292	265	240	218
	L/360	2731	2277	1918	1631	1398	1208	1051	919	809	716	636	568	510	459	414
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness															
	ASD, Sn/Ω = 7313 plf / LRFD, ϕSn = 11701 plf															
	G' (kip/in)	5036	5033	5031	5031	5029	5028	5026	5025	5024	5024	5023	5022	5021	5020	5019

Gage No.	Limit condition	Spans (ft)														
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15
		ASD & LRFD - Available Superimposed Load Capacity, W (psf)														
20	ASD, W/Ω	800	700	615	543	482	430	384	344	310	279	251	227	205	186	168
	LRFD, ϕW	1221	1070	944	837	746	667	599	539	487	441	400	364	331	302	276
	L/360	2885	2405	2026	1723	1477	1276	1110	971	855	756	672	600	538	485	438
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness															
	ASD, Sn/Ω = 7356 plf / LRFD, ϕSn = 11769 plf															
	G' (kip/in)	5041	5038	5036	5035	5033	5032	5030	5029	5027	5027	5026	5025	5024	5023	5022

Gage No.	Limit condition	Spans (ft)														
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15
		ASD & LRFD - Available Superimposed Load Capacity, W (psf)														
18	ASD, W/Ω	1060	929	820	727	648	580	521	470	424	385	349	318	290	264	241
	LRFD, ϕW	1609	1414	1251	1112	994	892	804	727	659	600	547	500	458	420	386
	L/360	3169	2642	2226	1893	1623	1402	1219	1067	939	831	739	660	591	532	481
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness															
	ASD, Sn/Ω = 7439 plf / LRFD, ϕSn = 11903 plf															
	G' (kip/in)	5049	5046	5044	5043	5041	5039	5037	5035	5033	5033	5032	5030	5029	5028	5027

Gage No.	Limit condition	Spans (ft)														
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15
		ASD & LRFD - Available Superimposed Load Capacity, W (psf)														
16	ASD, W/Ω	1305	1147	1014	901	805	722	651	588	533	485	442	403	369	338	311
	LRFD, ϕW	1976	1739	1540	1372	1228	1105	997	904	822	750	685	628	577	531	489
	L/360	3432	2862	2411	2050	1757	1518	1320	1155	1017	900	800	714	640	576	521
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness															
	ASD, Sn/Ω = 7524 plf / LRFD, ϕSn = 12038 plf															
	G' (kip/in)	5057	5054	5051	5050	5047	5045	5043	5041	5039	5039	5037	5036	5034	5033	5032

Note: The required number of fasteners for chords and collectors shall be based on the diaphragm shear transfer required per foot of deck, regardless of whether the chord or collector is oriented parallel or perpendicular to the deck flutes. Additional fasteners will likely be required depending on the design shear demand. See the General Notes for details.

Individual Fastener Values (lbs per connection)				
3/4" Arc Spot Welds	No. 22 gage	No. 20 gage	No. 18 gage	No. 16 gage
ASD	832	1164	2182	2683
LRFD	1281	1793	3360	4132

Table 12g: FD3W-36 (3-inch Composite) with 5" Total Slab Thickness LWC (110 pcf)

Max Unshored Spans	Gage No.	1-Span	2-Span	3-Span
	22	11' - 2"	12' - 2"	12' - 6"
	20	12' - 8"	13' - 10"	14' - 4"
	18	13' - 6"	16' - 7"	15' - 10"
	16	14' - 3"	17' - 9"	16' - 8"

Gage No.	Limit condition	Spans (ft)														
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
22	ASD, W/Ω	306	267	234	207	183	163	146	131	117	105	95	86	77	70	63
	LRFD, ϕW	464	407	358	317	283	253	227	204	184	166	151	137	124	113	103
	L/360	498	415	350	297	255	220	192	168	148	131	116	104	93	84	76
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness															
	ASD, Sn/Ω = 3006 plf / LRFD, ϕSn = 4809 plf															
	G' (kip/in)	1946	1944	1942	1941	1939	1938	1936	1935	1934	1934	1933	1932	1931	1930	1929
Gage No.	Limit condition	Spans (ft)														
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
20	ASD, W/Ω	364	319	281	248	221	197	177	159	143	129	117	106	96	87	79
	LRFD, ϕW	551	484	427	379	338	303	273	246	222	202	184	167	153	140	128
	L/360	535	446	376	319	274	237	206	180	159	140	125	111	100	90	81
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness															
	ASD, Sn/Ω = 3054 plf / LRFD, ϕSn = 4886 plf															
	G' (kip/in)	1951	1948	1946	1945	1944	1942	1940	1939	1937	1937	1936	1935	1934	1933	1932
Gage No.	Limit condition	Spans (ft)														
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
18	ASD, W/Ω	501	440	389	346	308	277	249	225	204	185	168	154	140	129	118
	LRFD, ϕW	760	668	592	527	471	424	382	346	315	287	262	240	220	202	186
	L/360	602	502	423	359	308	266	231	203	178	158	140	125	112	101	91
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness															
	ASD, Sn/Ω = 3150 plf / LRFD, ϕSn = 5040 plf															
	G' (kip/in)	1959	1957	1954	1953	1951	1949	1947	1945	1944	1943	1942	1941	1939	1938	1937
Gage No.	Limit condition	Spans (ft)														
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
16	ASD, W/Ω	594	522	462	411	367	330	298	269	244	222	203	186	170	156	144
	LRFD, ϕW	898	791	701	625	560	504	455	413	376	343	314	288	265	244	225
	L/360	663	552	465	396	339	293	255	223	196	174	154	138	124	111	101
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness															
	ASD, Sn/Ω = 3246 plf / LRFD, ϕSn = 5194 plf															
	G' (kip/in)	1967	1964	1961	1960	1958	1955	1953	1951	1949	1949	1947	1946	1944	1943	1942

Note: The required number of fasteners for chords and collectors shall be based on the diaphragm shear transfer required per foot of deck, regardless of whether the chord or collector is oriented parallel or perpendicular to the deck flutes. Additional fasteners will likely be required depending on the design shear demand. See the General Notes for details.

Individual Fastener Values (lbs per connection)				
3/4" Arc Spot Welds	No. 22 gage	No. 20 gage	No. 18 gage	No. 16 gage
ASD	832	1164	2182	2683
LRFD	1281	1793	3360	4132

Table 12h: FD3W-36 (3-inch Composite) with 5.5" Total Slab Thickness LWC (110 pcf)

Max Unshored Spans	Gage No.	1-Span	2-Span	3-Span
	22	10' - 8"	11' - 8"	12' - 0"
	20	12' - 3"	13' - 4"	13' - 9"
	18	13' - 2"	15' - 11"	15' - 5"
	16	13' - 10"	17' - 3"	16' - 3"

Gage No.	Limit condition	Spans (ft)														
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15
		ASD & LRFD - Available Superimposed Load Capacity, W (psf)														
22	ASD, W/Ω	356	311	274	242	214	191	171	153	137	123	111	100	91	82	74
	LRFD, ϕW	541	474	418	370	330	295	265	238	215	195	177	160	146	133	121
	L/360	649	541	456	388	333	287	250	219	192	170	151	135	121	109	99
		36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness														
		ASD, Sn/Ω = 3400 plf / LRFD, ϕSn = 5440 plf														
	G' (kip/in)	2421	2419	2417	2416	2415	2413	2412	2410	2409	2409	2408	2407	2406	2405	2404
Gage No.	Limit condition	Spans (ft)														
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15
		ASD & LRFD - Available Superimposed Load Capacity, W (psf)														
20	ASD, W/Ω	425	372	328	290	258	230	207	186	167	151	137	124	113	103	93
	LRFD, ϕW	643	564	498	442	395	354	318	287	260	236	215	196	179	164	150
	L/360	696	581	489	416	357	308	268	234	206	183	162	145	130	117	106
		36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness														
		ASD, Sn/Ω = 3448 plf / LRFD, ϕSn = 5517 plf														
	G' (kip/in)	2426	2424	2421	2421	2419	2417	2416	2414	2413	2413	2411	2410	2409	2408	2407
Gage No.	Limit condition	Spans (ft)														
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15
		ASD & LRFD - Available Superimposed Load Capacity, W (psf)														
18	ASD, W/Ω	554	486	429	381	340	305	275	248	224	204	185	169	154	141	130
	LRFD, ϕW	835	734	650	579	518	465	420	380	345	314	287	263	241	222	204
	L/360	781	651	548	466	400	345	300	263	231	205	182	163	146	131	118
		36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness														
		ASD, Sn/Ω = 3544 plf / LRFD, ϕSn = 5671 plf														
	G' (kip/in)	2435	2432	2429	2429	2426	2424	2422	2421	2419	2419	2417	2416	2415	2414	2412
Gage No.	Limit condition	Spans (ft)														
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15
		ASD & LRFD - Available Superimposed Load Capacity, W (psf)														
16	ASD, W/Ω	706	621	550	489	438	393	355	321	292	266	243	222	204	187	172
	LRFD, ϕW	1068	940	834	743	666	600	542	492	448	409	375	344	316	292	270
	L/360	858	715	602	512	439	379	330	289	254	225	200	178	160	144	130
		36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness														
		ASD, Sn/Ω = 3641 plf / LRFD, ϕSn = 5825 plf														
	G' (kip/in)	2443	2439	2436	2436	2433	2431	2428	2426	2424	2424	2423	2421	2420	2418	2417

Note: The required number of fasteners for chords and collectors shall be based on the diaphragm shear transfer required per foot of deck, regardless of whether the chord or collector is oriented parallel or perpendicular to the deck flutes. Additional fasteners will likely be required depending on the design shear demand. See the General Notes for details.

Individual Fastener Values (lbs per connection)				
3/4" Arc Spot Welds	No. 22 gage	No. 20 gage	No. 18 gage	No. 16 gage
ASD	832	1164	2182	2683
LRFD	1281	1793	3360	4132

Table 12i: FD3W-36 (3-inch Composite) with 6.25" Total Slab Thickness LWC (110 pcf)

Max Unshored Spans	Gage No.	1-Span	2-Span	3-Span
	22	10' - 1"	11' - 0"	11' - 5"
	20	11' - 10"	12' - 7"	13' - 0"
	18	12' - 8"	15' - 1"	14' - 10"
	16	13' - 4"	16' - 8"	15' - 8"

Gage No.	Limit condition	Spans (ft)															
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
22	ASD, W/Ω	438	383	337	298	264	236	211	189	170	153	138	125	113	102	92	
	LRFD, ϕW	665	583	514	456	406	363	326	294	265	240	218	198	181	165	150	
	L/360	931	776	654	556	477	412	358	313	276	244	217	194	174	156	141	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 3991 plf / LRFD, ϕSn = 6386 plf																
	G' (kip/in)	3134	3132	3130	3129	3128	3126	3125	3123	3122	3122	3121	3120	3119	3118	3117	
Gage No.	Limit condition	Spans (ft)															
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
20	ASD, W/Ω	523	458	403	357	318	284	255	230	207	187	170	154	140	128	116	
	LRFD, ϕW	790	694	613	545	486	436	392	354	321	292	266	242	221	203	186	
	L/360	996	831	700	595	510	441	383	335	295	261	232	207	186	167	151	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 4040 plf / LRFD, ϕSn = 6464 plf																
	G' (kip/in)	3139	3137	3134	3134	3132	3130	3129	3127	3126	3126	3124	3123	3122	3121	3120	
Gage No.	Limit condition	Spans (ft)															
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
18	ASD, W/Ω	682	599	529	470	420	377	339	306	278	252	230	210	192	176	161	
	LRFD, ϕW	1028	904	801	713	638	574	518	469	426	389	355	325	299	275	253	
	L/360	1114	929	783	665	571	493	429	375	330	292	260	232	208	187	169	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 4136 plf / LRFD, ϕSn = 6617 plf																
	G' (kip/in)	3148	3145	3142	3142	3139	3137	3135	3134	3132	3132	3130	3129	3128	3127	3125	
Gage No.	Limit condition	Spans (ft)															
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
16	ASD, W/Ω	835	734	650	578	517	465	419	380	345	314	287	263	241	222	204	
	LRFD, ϕW	1255	1105	980	874	783	705	637	578	527	481	440	404	372	343	317	
	L/360	1221	1018	858	729	625	540	470	411	362	320	285	254	228	205	185	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 4232 plf / LRFD, ϕSn = 6771 plf																
	G' (kip/in)	3156	3152	3149	3149	3146	3144	3141	3139	3137	3137	3136	3134	3133	3131	3130	

Note: The required number of fasteners for chords and collectors shall be based on the diaphragm shear transfer required per foot of deck, regardless of whether the chord or collector is oriented parallel or perpendicular to the deck flutes. Additional fasteners will likely be required depending on the design shear demand. See the General Notes for details.

Individual Fastener Values (lbs per connection)				
3/4" Arc Spot Welds	No. 22 gage	No. 20 gage	No. 18 gage	No. 16 gage
ASD	832	1164	2182	2683
LRFD	1281	1793	3360	4132

Table 12j: FD3W-36 (3-inch Composite) with 7.25" Total Slab Thickness LWC (110 pcf)

Max Unshored Spans	Gage No.	1-Span	2-Span	3-Span
	22	9' - 5"	10' - 1"	10' - 8"
	20	11' - 1"	11' - 10"	12' - 3"
	18	12' - 2"	14' - 2"	14' - 3"
	16	12' - 10"	15' - 10"	15' - 0"

Gage No.	Limit condition	Spans (ft)															
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
22	ASD, W/Ω	555	485	427	377	335	299	268	240	216	195	176	160	145	131	119	
	LRFD, ϕW	840	737	650	577	514	461	414	373	337	306	278	253	231	211	193	
	L/360	1421	1184	998	848	727	628	546	478	421	372	331	296	265	239	216	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 4780 plf / LRFD, ϕSn = 7648 plf																
	G' (kip/in)	4085	4083	4081	4080	4078	4077	4076	4074	4073	4073	4072	4071	4070	4069	4068	
Gage No.	Limit condition	Spans (ft)															
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
20	ASD, W/Ω	662	580	512	454	404	361	325	292	264	239	217	197	179	164	149	
	LRFD, ϕW	1001	879	777	691	617	553	498	450	408	371	338	309	283	259	238	
	L/360	1517	1265	1066	906	777	671	584	511	450	398	354	316	283	255	230	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 4829 plf / LRFD, ϕSn = 7726 plf																
	G' (kip/in)	4090	4087	4085	4085	4083	4081	4079	4078	4076	4076	4075	4074	4073	4072	4071	
Gage No.	Limit condition	Spans (ft)															
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
18	ASD, W/Ω	867	761	673	598	535	480	432	391	354	322	294	269	246	225	207	
	LRFD, ϕW	1305	1148	1017	906	811	730	659	597	543	495	453	415	381	351	324	
	L/360	1693	1412	1189	1011	867	749	651	570	502	444	395	352	316	284	257	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 4925 plf / LRFD, ϕSn = 7879 plf																
	G' (kip/in)	4099	4096	4093	4092	4090	4088	4086	4084	4083	4083	4081	4080	4079	4077	4076	
Gage No.	Limit condition	Spans (ft)															
		8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
16	ASD, W/Ω	1062	935	828	737	660	593	536	485	441	402	368	337	309	285	262	
	LRFD, ϕW	1596	1406	1247	1113	998	899	813	738	672	614	563	517	476	439	406	
	L/360	1852	1544	1301	1106	948	819	712	624	549	486	432	385	346	311	281	
	36/4 - 3/4" ASW: ASD & LRFD - Available Diaphragm Shear Capacity Sn & G' - Diaphragm stiffness																
	ASD, Sn/Ω = 5021 plf / LRFD, ϕSn = 8033 plf																
	G' (kip/in)	4106	4103	4100	4099	4097	4094	4092	4090	4088	4088	4086	4085	4083	4082	4081	

Note: The required number of fasteners for chords and collectors shall be based on the diaphragm shear transfer required per foot of deck, regardless of whether the chord or collector is oriented parallel or perpendicular to the deck flutes. Additional fasteners will likely be required depending on the design shear demand. See the General Notes for details.

Individual Fastener Values (lbs per connection)				
3/4" Arc Spot Welds	No. 22 gage	No. 20 gage	No. 18 gage	No. 16 gage
ASD	832	1164	2182	2683
LRFD	1281	1793	3360	4132

TABLE 13: RDB-36 (1.5-inch Roof) - Bare Deck Superimposed Loads

Maximum Uniform Inward Allowable (ASD) and Factored (LRFD) - PSF																
Gage No.	Span	Limit condition	Spans (ft)													
			4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	11	12
22	1-Span	ASD	219	173	140	116	97	83	71	62	55	48	43	39	35	29	24
		LRFD	328	259	210	173	146	124	107	93	82	73	65	58	52	43	36
		L / 360	122	85	62	47	36	28	23	18	15	13	11	9	8	6	5
		L / 240	182	128	93	70	54	42	34	28	23	19	16	14	12	9	7
		L / 180	243	171	124	94	72	57	45	37	30	25	21	18	16	12	9
		L / 120	365	256	187	140	108	85	68	55	46	38	32	27	23	18	14
	2-Span	ASD	225	178	145	120	101	86	74	65	57	50	45	40	36	30	25
		LRFD	339	268	218	180	152	129	112	97	86	76	68	61	55	45	38
		L / 360	314	221	161	121	93	73	59	48	39	33	28	23	20	15	12
		L / 240	471	331	241	181	140	110	88	71	59	49	41	35	30	23	17
		L / 180	628	441	322	242	186	146	117	95	79	65	55	47	40	30	23
		L / 120	943	662	483	363	279	220	176	143	118	98	83	70	60	45	35
	3-Span	ASD	279	221	180	149	126	107	92	81	71	63	56	50	45	37	31
		LRFD	420	334	271	225	189	161	139	122	107	95	84	76	68	56	47
		L / 360	246	173	126	95	73	57	46	37	31	26	22	18	16	12	9
		L / 240	369	259	189	142	109	86	69	56	46	38	32	28	24	18	14
		L / 180	493	346	252	189	146	115	92	75	62	51	43	37	32	24	18
		L / 120	739	519	378	284	219	172	138	112	92	77	65	55	47	36	27

Maximum Uniform Inward Allowable (ASD) and Factored (LRFD) - PSF																
Gage No.	Span	Limit condition	Spans (ft)													
			4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	11	12
20	1-Span	ASD	286	226	183	151	127	108	93	81	71	63	56	51	46	38	32
		LRFD	430	339	275	227	191	163	140	122	107	95	85	76	69	57	48
		L / 360	150	105	77	58	44	35	28	23	19	16	13	11	10	7	6
		L / 240	224	158	115	86	66	52	42	34	28	23	20	17	14	11	8
		L / 180	299	210	153	115	89	70	56	45	37	31	26	22	19	14	11
		L / 120	449	315	230	173	133	105	84	68	56	47	39	33	29	22	17
	2-Span	ASD	286	227	184	153	128	109	94	82	72	64	57	51	46	38	32
		LRFD	430	342	277	230	193	165	142	124	109	97	86	77	70	58	48
		L / 360	378	266	194	146	112	88	71	57	47	39	33	28	24	18	14
		L / 240	568	399	291	218	168	132	106	86	71	59	50	42	36	27	21
		L / 180	757	531	387	291	224	176	141	115	95	79	66	56	48	36	28
		L / 120	1135	797	581	437	336	265	212	172	142	118	100	85	73	55	42
	3-Span	ASD	354	282	229	190	160	136	118	103	90	80	71	64	58	48	40
		LRFD	533	424	345	286	241	205	177	155	136	121	108	97	87	72	60
		L / 360	297	208	152	114	88	69	55	45	37	31	26	22	19	14	11
		L / 240	445	312	228	171	132	104	83	67	56	46	39	33	28	21	16
		L / 180	593	417	304	228	176	138	111	90	74	62	52	44	38	29	22
		L / 120	890	625	455	342	264	207	166	135	111	93	78	66	57	43	33

TABLE 13: RDB-36 (1.5-inch Roof) - Bare Deck Superimposed Loads (cont.)

Maximum Uniform Inward Allowable (ASD) and Factored (LRFD) - PSF																	
Gage No.	Span	Limit condition	Spans (ft)														
			4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	11	12
18	1-Span	ASD	398	314	254	210	177	151	130	113	99	88	79	70	64	53	44
		LRFD	598	472	382	316	266	226	195	170	149	132	118	106	96	79	66
		L / 360	208	146	106	80	62	48	39	31	26	22	18	15	13	10	8
		L / 240	311	219	159	120	92	73	58	47	39	32	27	23	20	15	12
		L / 180	415	292	213	160	123	97	77	63	52	43	36	31	27	20	15
		L / 120	623	437	319	240	185	145	116	94	78	65	55	46	40	30	23
	2-Span	ASD	402	319	259	215	181	154	133	116	102	90	81	72	65	54	45
		LRFD	604	480	390	323	272	232	200	175	154	136	121	109	98	81	68
		L / 360	505	355	259	194	150	118	94	77	63	53	44	38	32	24	19
		L / 240	757	532	388	291	224	177	141	115	95	79	67	57	48	36	28
		L / 180	1010	709	517	389	299	235	188	153	126	105	89	75	65	49	37
		L / 120	1515	1064	776	583	449	353	283	230	189	158	133	113	97	73	56
	3-Span	ASD	497	396	322	267	225	192	166	145	127	113	101	90	82	67	57
		LRFD	748	595	485	402	339	289	250	218	192	170	152	136	123	102	85
		L / 360	396	278	203	152	117	92	74	60	49	41	35	30	25	19	15
		L / 240	594	417	304	228	176	138	111	90	74	62	52	44	38	29	22
		L / 180	792	556	405	305	235	184	148	120	99	82	69	59	51	38	29
		L / 120	1187	834	608	457	352	277	222	180	148	124	104	89	76	57	44

Maximum Uniform Inward Allowable (ASD) and Factored (LRFD) - PSF																	
Gage No.	Span	Limit condition	Spans (ft)														
			4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	11	12
16	1-Span	ASD	508	401	325	269	226	192	166	144	127	112	100	90	81	67	56
		LRFD	763	603	488	404	339	289	249	217	191	169	151	135	122	101	85
		L / 360	264	186	135	102	78	62	49	40	33	28	23	20	17	13	10
		L / 240	396	278	203	152	117	92	74	60	50	41	35	30	25	19	15
		L / 180	529	371	271	203	157	123	99	80	66	55	46	39	34	25	20
		L / 120	793	557	406	305	235	185	148	120	99	83	70	59	51	38	29
	2-Span	ASD	506	402	327	271	228	195	168	146	129	114	102	91	82	68	57
		LRFD	762	605	492	408	343	293	253	220	194	172	153	138	124	103	86
		L / 360	637	447	326	245	189	148	119	97	80	66	56	48	41	31	24
		L / 240	955	671	489	367	283	223	178	145	119	100	84	71	61	46	35
		L / 180	1273	894	652	490	377	297	238	193	159	133	112	95	81	61	47
		L / 120	1910	1341	978	735	566	445	356	290	239	199	168	143	122	92	71
	3-Span	ASD	626	499	406	337	284	242	209	182	161	142	127	114	103	85	71
		LRFD	942	750	610	507	427	365	315	275	242	214	191	172	155	128	108
		L / 360	499	350	255	192	148	116	93	76	62	52	44	37	32	24	18
		L / 240	748	526	383	288	222	174	140	114	94	78	66	56	48	36	28
		L / 180	998	701	511	384	296	233	186	151	125	104	88	74	64	48	37
		L / 120	1497	1051	766	576	444	349	279	227	187	156	131	112	96	72	55

TABLE 14: RDB-36 (1.5-inch Roof) - 3/4" Arc Spot Welds to the Supports - Deck Shear and Stiffness

Maximum Uniform Inward Allowable (ASD) and Factored (LRFD) - PSF																	
Pattern	Gage No.	Sidelap in o.c.		Spans (ft)													
				4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	11	12
				ASD & LRFD - Available Diaphragm Shear, plf & G' -Diaphragm stiffness kip/in														
36/4 - 1.5" TSW at Sidelap	22	6	ASD	777	777	777	777	777	777	777	777	777	777	777	777	766	633	532
			LRFD	1282	1282	1282	1282	1282	1282	1282	1282	1282	1282	1282	1282	1226	1013	851
			G'	14	15	17	18	20	21	23	24	25	27	28	29	31	33	36
		8	ASD	777	777	777	777	777	777	777	777	777	777	777	777	766	633	532
			LRFD	1282	1282	1282	1282	1282	1282	1282	1282	1282	1282	1282	1282	1226	1013	851
			G'	14	15	17	18	20	21	22	24	25	27	28	29	30	33	35
		12	ASD	777	777	777	777	775	777	767	777	761	776	756	770	752	633	532
			LRFD	1282	1282	1282	1282	1279	1282	1266	1282	1256	1280	1247	1271	1226	1013	851
			G'	13	15	16	18	19	21	22	24	25	26	27	29	30	32	35
		24	ASD	618	681	639	601	567	621	592	564	539	585	562	541	521	543	509
			LRFD	1020	1123	1055	992	935	1025	976	931	889	965	928	893	860	895	839
			G'	13	15	16	18	19	20	22	23	24	25	26	27	28	31	33
	20	6	ASD	1087	1087	1087	1087	1087	1087	1087	1087	1087	1087	1087	1087	1001	827	695
			LRFD	1793	1793	1793	1793	1793	1793	1793	1793	1793	1793	1793	1774	1601	1323	1112
			G'	21	23	25	28	30	32	34	36	38	40	42	44	46	50	53
		8	ASD	1087	1087	1087	1087	1087	1087	1087	1087	1087	1087	1087	1087	1001	827	695
			LRFD	1793	1793	1793	1793	1793	1793	1793	1793	1793	1793	1793	1774	1601	1323	1112
			G'	21	23	25	28	30	32	34	36	38	40	42	44	45	49	52
		12	ASD	1087	1087	1063	1087	1046	1071	1034	1057	1024	1046	1016	1036	1001	827	695
			LRFD	1793	1793	1755	1793	1726	1767	1706	1744	1690	1725	1677	1710	1601	1323	1112
			G'	21	23	25	27	29	31	33	35	37	39	41	43	44	47	51
		24	ASD	832	916	858	805	756	829	788	750	715	777	746	716	689	717	671
			LRFD	1373	1511	1415	1328	1248	1368	1300	1238	1179	1282	1230	1181	1136	1183	1107
			G'	20	22	24	26	28	30	32	34	35	37	39	40	41	45	47
	18	6	ASD	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1538	1271	1068
			LRFD	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2460	2033	1708
			G'	40	44	48	52	56	60	64	67	71	74	77	80	83	89	95
		8	ASD	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1538	1271	1068
			LRFD	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2460	2033	1708
			G'	40	44	48	52	56	59	63	66	69	73	76	79	82	87	92
		12	ASD	1597	1600	1562	1600	1537	1573	1518	1552	1504	1535	1493	1522	1483	1271	1068
			LRFD	2635	2640	2577	2639	2536	2595	2505	2561	2482	2533	2463	2511	2447	2033	1708
			G'	39	43	47	51	54	58	61	64	67	70	73	76	78	83	88
		24	ASD	1222	1345	1259	1181	1110	1217	1156	1100	1049	1140	1094	1051	1010	1052	984
			LRFD	2017	2220	2078	1949	1832	2008	1908	1816	1730	1882	1805	1734	1667	1736	1623
			G'	38	42	45	48	51	55	58	60	62	66	68	69	71	76	79
	16	6	ASD	1967	1967	1967	1967	1967	1967	1967	1967	1967	1967	1967	1967	1967	1787	1502
			LRFD	3246	3246	3246	3246	3246	3246	3246	3246	3246	3246	3246	3246	3246	2858	2402
			G'	66	72	78	84	90	96	101	106	111	116	120	125	129	137	144
		8	ASD	1967	1967	1967	1967	1967	1967	1967	1967	1967	1967	1967	1967	1967	1787	1502
			LRFD	3246	3246	3246	3246	3246	3246	3246	3246	3246	3246	3246	3246	3246	2858	2402
			G'	65	71	77	83	88	94	99	104	108	113	117	122	125	133	139
		12	ASD	1967	1967	1967	1967	1958	1967	1937	1967	1922	1960	1909	1945	1899	1787	1502
			LRFD	3246	3246	3246	3246	3230	3246	3197	3246	3171	3233	3150	3209	3133	2858	2402
			G'	63	70	75	81	85	91	95	100	103	108	111	116	118	125	131
		24	ASD	1561	1719	1614	1518	1430	1567	1493	1423	1359	1476	1418	1364	1314	1369	1283
			LRFD	2575	2836	2663	2505	2360	2586	2463	2349	2242	2435	2340	2251	2168	2258	2116
			G'	60	67	71	75	78	85	88	90	93	99	101	102	104	111	113

TABLE 14: RDB-36 (1.5-inch Roof) - 3/4" Arc Spot Welds to the Supports - Deck Shear and Stiffness (cont.)

Maximum Uniform Inward Allowable (ASD) and Factored (LRFD) - PSF																	
Pattern	Gage No.	Sidelap in o.c.		Spans (ft)													
				4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	11	12
				ASD & LRFD - Available Diaphragm Shear, plf & G' -Diaphragm stiffness kip/in														
36/5 - 1.5" TSW at Sidelap	22	6	ASD	777	777	777	777	777	777	777	777	777	777	777	777	766	633	532
			LRFD	1282	1282	1282	1282	1282	1282	1282	1282	1282	1282	1282	1282	1226	1013	851
			G'	19	21	23	25	27	29	31	33	34	36	38	39	41	44	47
		8	ASD	777	777	777	777	777	777	777	777	777	777	777	777	766	633	532
			LRFD	1282	1282	1282	1282	1282	1282	1282	1282	1282	1282	1282	1282	1226	1013	851
			G'	19	21	23	25	27	29	30	32	34	36	37	39	41	44	47
		12	ASD	777	777	777	777	777	777	777	777	777	777	777	777	766	633	532
			LRFD	1282	1282	1282	1282	1282	1282	1282	1282	1282	1282	1282	1282	1226	1013	851
			G'	19	21	23	25	26	28	30	32	33	35	37	38	40	43	45
		24	ASD	714	777	729	681	639	698	662	628	598	649	621	596	572	594	532
			LRFD	1179	1282	1202	1124	1054	1152	1092	1037	986	1070	1025	983	943	980	851
			G'	18	20	22	24	25	27	29	30	32	34	35	36	37	40	42
	20	6	ASD	1087	1087	1087	1087	1087	1087	1087	1087	1087	1087	1087	1087	1001	827	695
			LRFD	1793	1793	1793	1793	1793	1793	1793	1793	1793	1793	1793	1774	1601	1323	1112
			G'	29	32	35	38	40	43	46	48	51	53	56	58	60	65	69
		8	ASD	1087	1087	1087	1087	1087	1087	1087	1087	1087	1087	1087	1087	1001	827	695
			LRFD	1793	1793	1793	1793	1793	1793	1793	1793	1793	1793	1793	1774	1601	1323	1112
			G'	28	31	34	37	40	43	45	48	50	53	55	57	59	64	67
		12	ASD	1087	1087	1087	1087	1087	1087	1087	1087	1087	1087	1087	1087	1001	827	695
			LRFD	1793	1793	1793	1793	1793	1793	1793	1793	1793	1793	1793	1774	1601	1323	1112
			G'	28	31	34	37	39	42	44	47	49	51	53	56	57	61	65
		24	ASD	963	1051	977	912	853	931	881	835	793	860	823	788	755	784	695
			LRFD	1590	1734	1613	1504	1408	1536	1453	1378	1308	1420	1357	1300	1246	1293	1112
			G'	27	30	33	35	37	40	42	44	46	49	50	52	53	57	59
	18	6	ASD	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1538	1271	1068
			LRFD	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2460	2033	1708
			G'	54	59	65	70	74	79	83	87	91	95	99	103	106	113	119
		8	ASD	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1538	1271	1068
			LRFD	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2460	2033	1708
			G'	53	59	64	69	73	77	82	86	89	93	97	101	103	110	115
		12	ASD	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1538	1271	1068
			LRFD	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2460	2033	1708
			G'	52	58	62	67	71	75	79	83	86	90	92	96	98	104	109
		24	ASD	1415	1543	1435	1338	1252	1367	1293	1225	1163	1262	1207	1155	1108	1149	1068
			LRFD	2335	2545	2367	2208	2066	2255	2133	2021	1920	2082	1991	1906	1828	1896	1708
			G'	50	56	59	63	66	71	74	76	78	83	85	86	87	93	95
	16	6	ASD	1967	1967	1967	1967	1967	1967	1967	1967	1967	1967	1967	1967	1967	1787	1502
			LRFD	3246	3246	3246	3246	3246	3246	3246	3246	3246	3246	3246	3246	3246	2858	2402
			G'	87	95	102	110	116	123	129	134	140	145	150	155	159	168	176
		8	ASD	1967	1967	1967	1967	1967	1967	1967	1967	1967	1967	1967	1967	1967	1787	1502
			LRFD	3246	3246	3246	3246	3246	3246	3246	3246	3246	3246	3246	3246	3246	2858	2402
			G'	85	93	101	108	114	120	126	132	136	141	146	151	154	162	169
		12	ASD	1967	1967	1967	1967	1967	1967	1967	1967	1967	1967	1967	1967	1967	1787	1502
			LRFD	3246	3246	3246	3246	3246	3246	3246	3246	3246	3246	3246	3246	3246	2858	2402
			G'	83	91	97	104	109	115	119	125	129	134	137	142	144	151	157
		24	ASD	1804	1967	1840	1720	1612	1762	1670	1585	1508	1636	1567	1502	1442	1498	1396
			LRFD	2977	3246	3035	2838	2660	2907	2755	2615	2488	2700	2585	2478	2379	2471	2304
			G'	78	87	91	95	99	106	109	111	113	120	122	123	124	132	132

Table 14: RDB-36 (1.5-inch Roof) - 3/4" Arc Spot Welds to the Supports - Deck Shear and Stiffness (cont.)

Maximum Uniform Inward Allowable (ASD) and Factored (LRFD) - PSF																	
Pattern	Gage No.	Sidelap in o.c.		Spans (ft)													
				4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	11	12
				ASD & LRFD - Available Diaphragm Shear, plf & G' -Diaphragm stiffness kip/in														
36/7 - 1.5" TSW at Sidelap	22	6	ASD	1437	1427	1418	1412	1406	1400	1396	1362	1197	1061	946	849	766	633	532
			LRFD	2371	2354	2340	2329	2319	2311	2303	2179	1915	1697	1514	1358	1226	1013	851
			G'	80	86	91	96	100	104	107	111	114	117	119	122	124	129	133
		8	ASD	1300	1304	1307	1309	1254	1260	1266	1270	1197	1061	946	849	766	633	532
			LRFD	2146	2152	2157	2160	2069	2079	2088	2096	1915	1697	1514	1358	1226	1013	851
			G'	78	84	89	94	97	101	105	108	110	113	116	118	120	124	127
		12	ASD	1096	1128	1055	1087	1026	1056	1005	1033	988	1015	946	849	766	633	532
			LRFD	1808	1862	1741	1793	1693	1743	1658	1705	1631	1675	1514	1358	1226	1013	851
			G'	76	82	85	90	92	97	99	102	104	107	108	111	112	115	118
		24	ASD	795	879	809	749	696	767	721	680	643	703	670	639	611	633	532
			LRFD	1312	1450	1335	1236	1148	1266	1190	1123	1062	1161	1105	1054	1008	1013	851
			G'	71	77	80	82	83	88	89	90	91	95	96	96	96	100	99
	20	6	ASD	1952	1935	1922	1911	1901	1893	1886	1779	1564	1385	1235	1109	1001	827	695
			LRFD	3220	3193	3171	3153	3137	3123	3111	2846	2502	2216	1976	1774	1601	1323	1112
			G'	111	118	124	129	134	139	143	147	150	153	156	159	161	166	170
		8	ASD	1755	1758	1760	1762	1682	1690	1697	1703	1564	1385	1235	1109	1001	827	695
			LRFD	2895	2900	2905	2908	2775	2789	2800	2810	2502	2216	1976	1774	1601	1323	1112
			G'	108	115	121	127	130	134	139	142	144	147	151	153	154	159	162
		12	ASD	1470	1511	1409	1450	1365	1405	1334	1371	1309	1345	1235	1109	1001	827	695
			LRFD	2426	2494	2324	2393	2253	2319	2201	2263	2160	2216	1976	1774	1601	1323	1112
			G'	104	111	114	120	122	127	129	133	134	138	139	142	143	146	149
		24	ASD	1068	1175	1079	997	925	1017	955	900	850	927	882	841	803	827	695
			LRFD	1763	1938	1781	1645	1527	1678	1576	1484	1403	1530	1456	1388	1326	1323	1112
			G'	95	103	105	107	107	115	115	115	115	121	120	120	119	124	122
	18	6	ASD	2868	2844	2824	2807	2793	2780	2770	2733	2402	2128	1898	1704	1538	1271	1068
			LRFD	4732	4692	4659	4632	4608	4588	4570	4373	3843	3405	3037	2726	2460	2033	1708
			G'	177	185	192	199	204	209	214	218	222	225	228	231	234	238	242
		8	ASD	2577	2582	2585	2588	2469	2481	2491	2500	2402	2128	1898	1704	1538	1271	1068
			LRFD	4252	4260	4265	4270	4074	4094	4111	4125	3843	3405	3037	2726	2460	2033	1708
			G'	171	179	187	193	195	201	206	210	211	214	218	221	221	226	228
		12	ASD	2158	2219	2067	2128	2004	2062	1957	2012	1920	1973	1892	1704	1538	1271	1068
			LRFD	3561	3661	3411	3512	3306	3403	3229	3320	3169	3255	3037	2726	2460	2033	1708
			G'	161	170	172	180	181	187	187	193	193	198	197	201	200	203	206
		24	ASD	1569	1724	1584	1463	1358	1492	1401	1320	1247	1360	1294	1233	1178	1224	1068
			LRFD	2588	2845	2614	2415	2241	2462	2312	2177	2057	2245	2135	2035	1944	2019	1708
			G'	143	155	155	155	154	164	163	161	159	168	166	164	161	168	163
	16	6	ASD	3632	3606	3585	3567	3551	3538	3527	3517	3378	2993	2669	2396	2162	1787	1502
			LRFD	5992	5950	5915	5885	5860	5838	5820	5803	5405	4788	4270	3833	3459	2858	2402
			G'	246	255	262	269	275	280	285	289	292	295	298	301	304	308	312
		8	ASD	3285	3294	3301	3307	3165	3182	3196	3208	3100	2993	2669	2396	2162	1787	1502
			LRFD	5420	5435	5447	5456	5223	5250	5273	5293	5116	4788	4270	3833	3459	2858	2402
			G'	235	245	253	260	261	266	271	276	275	279	283	286	285	290	291
		12	ASD	2767	2848	2663	2743	2589	2666	2535	2607	2493	2560	2460	2396	2162	1787	1502
			LRFD	4566	4699	4393	4525	4272	4398	4182	4301	4113	4225	4058	3833	3459	2858	2402
			G'	219	230	230	239	238	245	244	250	248	254	252	257	254	257	259
		24	ASD	2008	2218	2042	1889	1756	1935	1819	1716	1622	1773	1688	1611	1540	1603	1484
			LRFD	3314	3660	3370	3117	2897	3193	3002	2831	2677	2926	2786	2658	2540	2644	2402
			G'	190	206	203	200	197	210	207	203	199	211	207	204	200	207	200

TABLE 14: RDB-36 (1.5-inch Roof) - 3/4" Arc Spot Welds to the Supports - Deck Shear and Stiffness (cont.)

Maximum Uniform Inward Allowable (ASD) and Factored (LRFD) - PSF																	
Pattern	Gage No.	Sidelap in o.c.		Spans (ft)													
				4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	11	12
				ASD & LRFD - Available Diaphragm Shear, plf & G' -Diaphragm stiffness kip/in														
36/4 - #12 Screw at Sidelap	22	6	ASD	589	571	557	545	534	525	517	510	504	498	493	489	485	478	472
			LRFD	972	943	919	899	881	866	853	842	832	822	814	807	800	789	779
			G'	13	15	16	18	19	21	22	23	24	26	27	28	29	32	34
		8	ASD	524	511	501	493	460	456	452	449	426	425	424	422	405	404	390
			LRFD	864	844	827	813	760	752	746	741	703	701	699	697	668	667	644
			G'	13	15	16	18	19	20	22	23	24	25	27	28	29	31	33
		12	ASD	449	444	406	406	377	379	355	358	338	342	325	330	315	306	298
			LRFD	740	732	670	670	622	625	586	591	558	565	537	544	519	505	492
			G'	13	15	16	17	19	20	21	22	23	25	26	27	28	30	32
		24	ASD	364	368	335	303	277	288	266	247	230	242	228	216	205	207	189
			LRFD	600	607	553	501	457	475	438	407	380	399	377	357	339	341	312
			G'	13	14	16	17	18	19	20	21	22	23	24	25	25	27	28
	20	6	ASD	804	778	757	739	724	711	699	689	680	672	665	659	653	643	634
			LRFD	1326	1284	1249	1219	1195	1173	1154	1137	1123	1109	1098	1087	1077	1061	1047
			G'	20	23	25	27	29	31	33	35	36	38	40	41	43	46	49
		8	ASD	715	697	682	669	624	618	612	607	575	573	571	569	545	544	524
			LRFD	1180	1150	1125	1104	1030	1019	1010	1002	949	945	942	939	899	897	864
			G'	20	22	24	27	28	30	32	34	36	37	39	41	42	45	48
		12	ASD	614	606	554	553	513	514	482	485	458	463	437	444	422	410	400
			LRFD	1014	999	915	912	846	849	795	801	756	763	722	733	696	677	659
			G'	20	22	24	26	28	29	31	33	34	36	37	39	40	42	45
		24	ASD	501	505	460	417	380	393	364	338	315	329	309	293	278	279	256
			LRFD	827	833	759	688	628	649	600	557	520	543	510	483	459	460	422
			G'	19	21	23	25	26	28	29	30	31	33	34	35	36	38	39
	18	6	ASD	1204	1168	1137	1111	1090	1071	1054	1040	1027	1015	1005	996	987	973	960
			LRFD	1987	1927	1876	1834	1798	1767	1739	1715	1694	1675	1658	1643	1629	1605	1585
			G'	39	42	46	50	53	56	59	62	65	68	71	73	76	80	85
		8	ASD	1071	1045	1024	1006	939	930	922	916	868	865	863	860	824	823	793
			LRFD	1767	1724	1690	1660	1550	1535	1522	1511	1433	1428	1423	1419	1359	1358	1309
			G'	38	42	45	49	52	55	58	61	63	66	68	71	72	77	80
		12	ASD	918	907	831	829	770	773	725	731	690	698	663	671	641	622	607
			LRFD	1515	1497	1371	1368	1270	1276	1196	1206	1139	1152	1094	1108	1058	1026	1002
			G'	37	41	43	47	49	52	55	57	59	62	63	66	67	71	74
		24	ASD	746	754	687	629	574	595	551	512	478	500	471	444	420	421	386
			LRFD	1230	1244	1133	1037	947	982	909	845	789	825	777	733	694	695	637
			G'	35	39	41	43	45	49	50	51	52	55	56	57	57	61	61
	16	6	ASD	1562	1520	1486	1456	1431	1410	1391	1375	1360	1347	1335	1325	1315	1298	1284
			LRFD	2577	2509	2451	2403	2362	2327	2296	2268	2244	2223	2203	2186	2170	2142	2119
			G'	62	68	73	78	83	87	91	95	99	103	106	110	113	119	124
		8	ASD	1387	1360	1338	1319	1234	1226	1218	1212	1151	1149	1148	1146	1099	1101	1063
			LRFD	2289	2244	2207	2177	2037	2023	2010	2000	1900	1896	1894	1891	1813	1817	1755
			G'	61	66	71	76	80	84	88	92	95	98	102	105	106	112	116
		12	ASD	1183	1176	1079	1083	1006	1015	953	964	911	924	879	892	852	831	812
			LRFD	1952	1940	1781	1787	1660	1675	1572	1591	1504	1525	1450	1472	1406	1371	1340
			G'	58	64	67	72	75	79	82	86	87	91	92	96	97	100	104
		24	ASD	948	967	882	810	747	779	724	673	629	663	624	590	559	561	512
			LRFD	1564	1596	1455	1337	1233	1285	1195	1111	1038	1094	1030	973	922	926	845
			G'	54	60	63	65	67	72	73	74	74	79	79	79	79	83	83

TABLE 14: RDB-36 (1.5-inch Roof) - 3/4" Arc Spot Welds to the Supports - Deck Shear and Stiffness (cont.)

Maximum Uniform Inward Allowable (ASD) and Factored (LRFD) - PSF																	
Pattern	Gage No.	Sidelap in o.c.		Spans (ft)													
				4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	11	12
				ASD & LRFD - Available Diaphragm Shear, plf & G' -Diaphragm stiffness kip/in														
36/5 - #12 Screw at Sidelap	22	6	ASD	682	657	636	618	603	589	578	568	559	551	544	538	532	522	513
			LRFD	1125	1084	1049	1019	994	972	954	937	922	910	898	887	878	861	847
			G'	18	20	22	24	26	28	29	31	33	34	36	37	39	41	44
		8	ASD	611	591	575	562	523	515	508	502	475	472	468	466	445	442	425
			LRFD	1008	976	949	927	862	850	838	828	784	778	773	768	735	730	701
			G'	18	20	22	24	26	27	29	31	32	34	35	36	38	40	43
		12	ASD	532	520	475	470	435	434	406	406	383	385	364	368	349	337	327
			LRFD	878	858	784	775	718	716	670	670	631	635	600	607	576	557	540
			G'	18	20	22	23	25	27	28	30	31	32	34	35	36	38	40
		24	ASD	446	442	402	366	334	341	315	293	273	282	267	253	240	238	218
			LRFD	735	730	664	604	552	562	520	483	451	466	440	417	396	393	360
			G'	18	19	21	22	24	26	27	28	29	30	31	32	33	35	36
	20	6	ASD	932	895	865	839	818	799	782	768	755	744	734	725	716	702	690
			LRFD	1537	1477	1427	1385	1349	1318	1291	1267	1246	1228	1211	1196	1182	1158	1112
			G'	28	31	33	36	38	41	43	46	48	50	52	54	56	59	63
		8	ASD	836	807	784	764	710	699	688	679	642	637	632	628	600	595	571
			LRFD	1380	1332	1293	1261	1172	1153	1136	1121	1060	1051	1043	1036	990	982	943
			G'	27	30	33	36	38	40	42	45	46	48	50	52	54	57	60
		12	ASD	731	712	650	641	594	590	552	552	519	521	491	495	470	454	440
			LRFD	1206	1174	1073	1058	980	974	911	911	857	860	810	817	776	749	726
			G'	27	30	32	34	36	39	41	43	44	46	48	50	51	53	56
		24	ASD	616	609	554	505	461	468	433	402	376	386	363	344	327	323	296
			LRFD	1016	1004	914	833	760	772	714	664	620	637	599	567	539	533	488
			G'	26	29	31	33	34	37	38	39	40	43	43	44	45	47	48
	18	6	ASD	1395	1342	1298	1261	1230	1202	1179	1158	1139	1123	1108	1095	1083	1062	1044
			LRFD	2302	2214	2142	2081	2029	1984	1945	1911	1880	1853	1829	1807	1787	1752	1708
			G'	51	56	61	65	69	73	76	80	83	86	89	92	94	99	104
		8	ASD	1250	1209	1175	1147	1067	1051	1036	1024	968	961	954	948	907	901	865
			LRFD	2063	1995	1939	1893	1761	1734	1710	1689	1598	1586	1575	1565	1496	1486	1427
			G'	50	55	59	64	67	70	74	77	79	82	85	88	89	94	98
		12	ASD	1090	1064	972	960	890	886	829	830	782	786	746	751	713	687	666
			LRFD	1799	1756	1604	1585	1468	1462	1368	1369	1291	1296	1230	1239	1176	1133	1099
			G'	49	54	57	61	63	67	69	72	74	77	78	81	82	86	89
		24	ASD	915	906	825	756	692	705	652	607	567	584	550	519	492	486	445
			LRFD	1509	1495	1361	1247	1142	1163	1076	1001	936	963	907	856	811	801	735
			G'	46	51	54	56	58	62	63	64	65	68	69	69	69	73	73
	16	6	ASD	1805	1744	1693	1650	1614	1582	1555	1531	1509	1490	1473	1457	1443	1419	1398
			LRFD	2979	2878	2794	2723	2663	2611	2565	2526	2490	2459	2430	2405	2381	2341	2307
			G'	81	88	94	99	105	110	114	118	123	126	130	133	136	142	147
		8	ASD	1613	1568	1530	1499	1397	1380	1365	1351	1280	1273	1267	1261	1207	1202	1157
			LRFD	2662	2587	2525	2473	2306	2277	2252	2230	2112	2100	2090	2081	1992	1984	1909
			G'	79	85	91	97	100	105	110	114	116	120	123	126	128	133	137
		12	ASD	1397	1372	1255	1247	1156	1156	1083	1088	1027	1035	983	992	947	917	892
			LRFD	2305	2263	2071	2057	1908	1908	1787	1795	1695	1707	1621	1637	1562	1513	1472
			G'	76	82	86	91	94	99	100	105	106	110	111	114	115	118	121
		24	ASD	1156	1156	1053	966	891	913	849	790	739	766	721	682	646	640	585
			LRFD	1907	1907	1737	1593	1471	1506	1400	1304	1219	1264	1190	1125	1066	1057	965
			G'	70	77	80	82	83	88	89	89	89	94	94	94	93	97	95

TABLE 14: RDB-36 (1.5-inch Roof) - 3/4" Arc Spot Welds to the Supports - Deck Shear and Stiffness (cont.)

Maximum Uniform Inward Allowable (ASD) and Factored (LRFD) - PSF																	
Pattern	Gage No.	Sidelap in o.c.		Spans (ft)													
				4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	11	12
				ASD & LRFD - Available Diaphragm Shear, plf & G' -Diaphragm stiffness kip/in														
36/7 - #12 Screw at Sidelap	22	6	ASD	756	722	695	672	653	637	622	610	599	589	580	572	565	553	532
			LRFD	1247	1192	1147	1109	1077	1051	1027	1006	988	972	958	944	933	912	851
			G'	74	78	82	85	89	91	94	96	98	100	102	104	105	108	110
		8	ASD	671	645	624	607	562	551	543	535	504	500	496	492	469	465	445
			LRFD	1107	1065	1030	1002	927	910	895	883	832	824	818	812	774	767	735
			G'	71	76	80	83	85	87	90	92	93	95	97	98	98	101	102
		12	ASD	580	564	512	504	463	459	425	425	397	399	377	380	361	348	337
			LRFD	958	930	845	832	763	758	701	701	655	658	622	626	595	574	556
			G'	68	72	74	78	79	82	82	85	85	87	87	89	88	90	91
		24	ASD	485	477	428	387	353	358	331	308	288	296	279	265	251	248	228
			LRFD	800	788	706	639	583	591	547	508	475	488	461	437	415	410	376
			G'	63	68	69	69	69	73	73	72	71	75	74	73	72	74	72
	20	6	ASD	1030	982	944	911	884	860	840	822	807	793	781	769	759	742	695
			LRFD	1699	1621	1557	1504	1459	1420	1387	1357	1332	1308	1288	1269	1253	1224	1112
			G'	100	105	109	113	116	119	122	124	126	128	130	132	133	136	138
		8	ASD	917	879	849	824	762	747	734	723	681	674	668	663	630	625	597
			LRFD	1513	1451	1401	1360	1258	1233	1212	1193	1124	1113	1102	1093	1040	1032	986
			G'	96	101	105	109	110	113	116	118	118	120	122	124	123	126	127
		12	ASD	797	771	700	688	631	625	579	577	540	540	509	512	487	468	453
			LRFD	1315	1273	1156	1135	1042	1032	955	952	890	892	840	845	803	773	748
			G'	91	96	97	101	101	104	104	107	106	109	108	110	109	110	111
		24	ASD	671	658	590	534	488	493	456	424	396	405	381	361	343	338	310
			LRFD	1107	1086	974	881	805	813	752	699	653	668	629	595	565	557	511
			G'	83	88	89	88	87	92	90	89	88	92	90	88	87	89	86
	18	6	ASD	1544	1475	1419	1371	1332	1297	1268	1242	1219	1199	1181	1165	1150	1124	1068
			LRFD	2548	2434	2341	2263	2197	2141	2092	2049	2012	1978	1949	1922	1898	1855	1708
			G'	153	159	163	166	170	172	175	177	179	180	182	183	184	186	188
		8	ASD	1372	1318	1275	1239	1146	1125	1106	1090	1028	1018	1009	1002	955	946	906
			LRFD	2263	2175	2104	2045	1891	1856	1825	1799	1696	1680	1665	1653	1576	1561	1494
			G'	146	151	155	159	158	161	164	166	164	166	168	170	168	171	170
		12	ASD	1189	1153	1048	1031	951	944	875	874	817	820	772	777	736	708	686
			LRFD	1961	1903	1729	1701	1569	1558	1444	1442	1349	1352	1274	1282	1215	1168	1132
			G'	136	141	140	144	142	146	144	147	145	148	145	148	145	145	146
		24	ASD	996	981	884	801	732	741	686	638	596	612	576	544	515	507	465
			LRFD	1643	1618	1459	1322	1207	1223	1132	1053	984	1009	950	898	850	837	767
			G'	121	127	125	122	119	125	122	119	116	121	118	115	112	115	110
	16	6	ASD	2010	1928	1861	1805	1758	1717	1682	1651	1624	1600	1578	1559	1541	1511	1485
			LRFD	3316	3181	3071	2978	2900	2833	2775	2724	2680	2639	2604	2572	2543	2493	2402
			G'	207	211	215	218	220	223	224	226	227	229	230	231	231	233	234
		8	ASD	1776	1716	1666	1626	1505	1482	1462	1445	1363	1353	1344	1336	1275	1268	1216
			LRFD	2930	2831	2749	2682	2484	2445	2412	2384	2248	2232	2218	2205	2104	2092	2006
			G'	194	199	203	207	203	206	208	211	207	209	211	212	209	212	210
		12	ASD	1525	1490	1354	1340	1237	1233	1151	1154	1084	1091	1029	1038	984	948	918
			LRFD	2516	2458	2235	2211	2041	2035	1899	1904	1789	1801	1697	1713	1624	1564	1515
			G'	178	184	180	185	180	184	180	184	179	183	179	182	178	177	177
		24	ASD	1258	1251	1134	1030	941	962	890	829	775	800	754	712	675	667	609
			LRFD	2075	2064	1871	1700	1553	1587	1469	1368	1279	1320	1244	1175	1114	1101	1005
			G'	156	164	159	153	148	155	150	145	141	147	143	139	135	137	130

TABLE 14: RDB-36 (1.5-inch Roof) - 3/4" Arc Spot Welds to the Supports - Deck Shear and Stiffness (cont.)

Maximum Uniform Inward Allowable (ASD) and Factored (LRFD) - PSF																	
Pattern	Gage No.	Sidelap in o.c.		Spans (ft)													
				4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	11	12
				ASD & LRFD - Available Diaphragm Shear, plf & G' -Diaphragm stiffness kip/in														
36/4 - Button Punch at Sidelap	22	6	ASD	327	296	271	251	234	220	207	197	187	180	173	168	163	154	147
			LRFD	540	488	448	414	386	362	342	325	309	296	286	277	268	254	242
			G'	12	14	15	16	17	18	18	19	20	21	21	22	22	23	24
		8	ASD	310	281	258	239	217	204	193	183	171	164	159	154	146	139	130
			LRFD	512	464	426	394	359	337	318	303	282	271	262	254	241	229	215
			G'	12	14	15	16	16	17	18	19	19	20	21	21	21	22	23
		12	ASD	294	266	238	221	201	189	174	166	154	148	140	136	129	121	113
			LRFD	485	439	393	364	331	312	287	273	254	245	231	225	213	199	187
			G'	12	13	14	15	16	17	18	18	19	19	20	20	20	21	21
		24	ASD	277	252	225	202	184	174	160	148	137	133	125	119	113	106	97
			LRFD	457	415	371	334	304	287	263	244	227	219	207	196	186	174	160
			G'	12	13	14	15	16	17	17	18	18	19	19	19	19	20	20
	20	6	ASD	433	390	355	327	303	283	266	251	238	227	216	208	201	189	179
			LRFD	715	644	586	539	500	467	439	414	393	374	357	344	332	312	295
			G'	19	20	22	23	24	25	26	27	28	28	29	30	30	31	32
		8	ASD	417	375	342	315	286	268	252	238	221	211	202	194	184	174	162
			LRFD	688	619	564	519	472	442	415	392	365	348	333	321	304	287	267
			G'	18	20	21	23	24	25	25	26	27	27	28	29	29	30	30
		12	ASD	400	360	322	296	270	252	233	220	205	195	183	177	168	156	145
			LRFD	660	595	531	489	445	416	384	363	338	322	302	292	277	257	240
			G'	18	20	21	22	23	24	25	25	26	26	27	27	27	27	28
		24	ASD	383	345	308	278	253	237	218	202	188	179	168	159	151	140	129
			LRFD	633	570	509	459	417	391	360	333	310	296	278	262	249	232	212
			G'	18	19	21	22	22	23	24	24	24	25	25	25	25	25	25
	18	6	ASD	611	547	496	454	419	390	365	343	324	307	292	278	266	247	232
			LRFD	1008	903	818	750	692	644	602	565	534	506	481	459	439	407	382
			G'	33	35	37	39	40	41	42	43	44	45	45	45	46	46	47
		8	ASD	594	532	483	442	403	375	350	329	307	291	277	264	249	231	215
			LRFD	981	878	796	730	664	618	578	543	507	480	457	436	411	382	355
			G'	33	35	37	38	39	40	41	42	42	42	43	43	43	43	43
		12	ASD	578	518	463	424	386	359	331	312	290	275	258	247	233	213	198
			LRFD	953	854	763	700	637	593	547	514	479	454	426	407	384	352	327
			G'	32	34	36	37	38	39	39	40	40	40	40	40	40	40	39
		24	ASD	561	503	449	406	369	344	317	294	274	260	244	229	216	198	182
			LRFD	926	829	741	669	609	567	523	485	452	428	402	378	356	327	300
			G'	32	34	35	36	36	37	37	37	37	38	37	37	36	36	35
	16	6	ASD	740	662	599	547	504	468	437	410	387	366	347	331	316	290	270
			LRFD	1221	1092	988	903	832	773	721	677	638	604	573	546	521	479	445
			G'	50	53	55	56	57	58	59	60	60	60	60	60	60	60	60
		8	ASD	723	647	585	535	488	453	423	397	370	350	333	317	299	275	253
			LRFD	1194	1067	966	883	805	747	698	655	611	578	549	523	494	454	417
			G'	49	52	54	55	55	56	57	57	57	57	57	57	56	56	55
		12	ASD	707	632	565	517	471	437	404	379	353	334	314	299	283	257	236
			LRFD	1166	1043	933	853	777	722	666	625	583	552	518	494	466	424	390
			G'	48	51	52	53	53	54	53	54	53	53	52	52	51	50	49
		24	ASD	690	617	552	499	454	422	390	361	337	319	299	282	266	242	220
			LRFD	1139	1018	911	823	750	696	643	596	556	526	494	465	439	399	362
			G'	47	49	50	50	50	51	50	50	49	49	48	47	46	45	43

TABLE 14: RDB-36 (1.5-inch Roof) - 3/4" Arc Spot Welds to the Supports - Deck Shear and Stiffness (cont.)

Maximum Uniform Inward Allowable (ASD) and Factored (LRFD) - PSF																	
Pattern	Gage No.	Sidelap in o.c.		Spans (ft)													
				4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	11	12
				ASD & LRFD - Available Diaphragm Shear, plf & G' -Diaphragm stiffness kip/in														
36/5 - Button Punch at Sidelap	22	6	ASD	410	373	340	314	292	273	257	243	231	220	212	204	197	185	175
			LRFD	676	615	562	518	481	450	424	400	381	364	349	337	326	306	289
			G'	17	19	20	21	22	23	24	25	26	27	27	28	28	29	30
		8	ASD	395	358	327	302	275	257	242	229	214	205	197	190	181	170	159
			LRFD	652	591	540	498	454	425	400	378	353	338	325	314	298	281	262
			G'	17	18	20	21	22	23	24	25	25	26	27	27	27	28	29
		12	ASD	380	343	307	283	258	242	223	212	197	189	178	173	164	152	142
			LRFD	627	566	507	468	426	399	369	349	326	312	294	285	271	251	234
			G'	17	18	20	21	22	23	23	24	25	25	25	26	26	27	27
		24	ASD	363	328	294	265	242	227	209	194	181	173	164	155	147	137	125
			LRFD	600	542	485	437	399	374	345	320	298	286	270	256	243	226	207
			G'	17	18	19	20	21	22	23	23	24	24	24	25	25	25	25
	20	6	ASD	551	497	452	415	384	357	335	315	298	283	270	259	249	233	219
			LRFD	909	821	745	684	633	590	553	520	492	468	446	427	411	384	361
			G'	25	27	29	30	32	33	34	35	35	36	37	37	38	38	39
		8	ASD	536	482	438	402	367	342	321	302	282	268	255	245	233	218	202
			LRFD	884	796	723	664	606	564	529	498	465	442	421	404	384	359	334
			G'	25	27	28	30	31	32	33	34	34	35	36	36	36	37	37
		12	ASD	521	468	418	384	350	327	302	284	265	252	237	227	216	199	186
			LRFD	859	772	690	634	578	539	498	469	437	416	391	375	356	329	306
			G'	25	27	28	29	30	31	32	33	33	34	34	34	34	34	34
		24	ASD	504	453	405	366	334	311	287	267	248	236	222	210	199	184	169
			LRFD	832	747	668	604	551	514	474	440	410	390	366	347	329	304	279
			G'	24	26	28	29	30	31	31	31	32	32	32	32	32	32	31
	18	6	ASD	783	705	638	584	538	499	466	438	413	390	371	353	337	311	291
			LRFD	1293	1164	1053	963	888	824	769	722	681	644	612	582	557	514	480
			G'	44	46	48	50	51	53	53	54	55	55	55	55	56	56	56
		8	ASD	769	690	625	571	521	484	452	424	396	375	356	339	321	296	274
			LRFD	1268	1139	1031	943	860	799	746	700	653	618	587	559	529	488	453
			G'	43	46	48	49	50	51	52	52	52	53	53	53	52	52	52
		12	ASD	754	676	605	553	505	469	433	407	379	359	337	322	304	278	258
			LRFD	1244	1115	998	913	833	773	714	671	626	592	557	531	502	459	425
			G'	43	45	47	48	49	49	50	50	50	50	49	50	49	48	47
		24	ASD	739	661	592	535	488	453	419	389	363	343	323	304	287	263	241
			LRFD	1219	1090	976	883	805	748	691	641	598	567	532	502	474	433	398
			G'	42	44	46	46	47	48	48	47	47	47	46	46	45	44	43
	16	6	ASD	950	856	774	706	650	603	562	527	496	469	445	423	403	370	342
			LRFD	1567	1412	1277	1165	1073	994	927	869	818	773	734	698	666	610	565
			G'	65	68	70	71	72	72	73	73	73	73	72	72	72	71	70
		8	ASD	935	841	760	694	634	587	548	513	479	453	430	409	387	355	326
			LRFD	1543	1388	1255	1146	1046	969	904	847	791	747	709	674	638	585	537
			G'	64	67	68	69	69	70	70	70	69	69	69	68	67	66	65
		12	ASD	920	826	740	676	617	572	529	496	463	437	411	391	370	336	309
			LRFD	1519	1363	1222	1115	1018	944	872	818	763	722	679	646	611	555	510
			G'	63	65	66	67	67	67	66	66	65	65	64	63	62	60	59
		24	ASD	906	811	727	658	600	557	514	478	446	422	396	374	353	321	292
			LRFD	1494	1339	1200	1085	991	919	849	789	736	696	654	617	583	530	482
			G'	62	64	64	64	64	64	63	62	61	61	59	58	57	55	52

TABLE 14: RDB-36 (1.5-inch Roof) - 3/4" Arc Spot Welds to the Supports - Deck Shear and Stiffness (cont.)

Maximum Uniform Inward Allowable (ASD) and Factored (LRFD) - PSF																	
Pattern	Gage No.	Sidelap in o.c.		Spans (ft)													
				4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	11	12
				ASD & LRFD - Available Diaphragm Shear, plf & G' -Diaphragm stiffness kip/in														
36/7 - Button Punch at Sidelap	22	6	ASD	442	398	363	335	311	290	273	258	245	234	225	216	209	196	185
			LRFD	729	657	600	552	513	479	450	426	404	386	371	357	344	323	305
			G'	59	60	60	61	61	60	60	60	59	58	58	57	57	56	54
		8	ASD	425	383	350	322	294	275	259	245	228	218	210	202	192	181	168
			LRFD	702	633	578	532	485	454	427	404	377	360	346	334	317	298	278
			G'	58	59	59	59	59	58	58	58	56	56	55	55	53	52	51
		12	ASD	409	369	330	304	277	260	240	227	212	202	191	185	175	163	152
			LRFD	674	608	545	502	458	428	395	375	349	334	316	305	289	268	250
			G'	57	58	58	58	57	56	55	55	54	53	52	51	50	48	47
		24	ASD	392	354	317	286	261	244	226	209	195	187	176	167	159	147	135
			LRFD	647	584	523	472	430	403	372	345	322	308	291	276	262	243	223
			G'	56	57	56	56	55	54	53	52	51	50	49	47	46	45	42
	20	6	ASD	594	533	484	444	410	382	358	337	319	302	288	276	266	247	232
			LRFD	981	879	799	733	677	630	591	556	526	499	475	455	438	408	383
			G'	76	76	76	76	75	74	73	72	71	70	69	68	67	65	63
		8	ASD	578	518	471	432	394	367	344	324	302	287	273	262	249	232	216
			LRFD	953	855	777	712	650	605	567	534	498	473	450	432	411	383	356
			G'	75	75	75	74	72	71	70	69	67	66	65	65	63	61	59
		12	ASD	561	503	451	414	377	351	325	306	285	271	255	244	232	214	199
			LRFD	926	831	744	683	622	580	536	504	471	447	420	403	383	353	328
			G'	73	73	72	71	70	69	67	66	64	63	61	60	58	56	54
		24	ASD	544	489	437	395	360	336	310	288	269	255	240	227	216	199	182
			LRFD	898	806	722	652	595	554	512	475	443	421	395	375	356	328	301
			G'	72	72	70	69	67	66	64	62	60	59	57	55	54	51	49
	18	6	ASD	848	758	686	627	577	536	500	469	442	418	397	378	361	333	311
			LRFD	1399	1251	1131	1034	953	884	825	774	729	690	655	624	596	549	513
			G'	108	107	104	102	100	97	95	93	91	89	88	86	84	81	79
		8	ASD	831	743	672	615	561	520	486	456	425	403	382	364	344	318	294
			LRFD	1372	1226	1109	1014	925	859	802	752	702	664	631	601	568	524	485
			G'	106	104	102	100	96	94	91	89	86	84	83	81	79	76	73
		12	ASD	815	728	652	596	544	505	467	438	409	387	364	346	328	300	277
			LRFD	1344	1202	1076	984	898	833	770	723	674	639	600	571	541	494	458
			G'	103	101	98	95	92	90	86	84	81	79	77	75	73	69	66
		24	ASD	798	713	639	578	527	490	453	420	392	371	349	329	311	284	261
			LRFD	1317	1177	1054	954	870	808	747	694	647	613	576	543	513	469	430
			G'	101	99	95	91	87	85	82	79	76	74	71	69	66	63	59
	16	6	ASD	1032	921	832	759	699	648	604	566	532	503	477	454	433	396	367
			LRFD	1702	1519	1373	1253	1153	1069	996	933	878	830	787	749	714	654	605
			G'	138	134	129	125	122	118	115	112	109	106	104	101	99	95	92
		8	ASD	1015	906	819	747	682	632	589	552	516	487	462	440	416	381	350
			LRFD	1675	1495	1351	1233	1125	1043	972	911	851	804	762	725	686	629	578
			G'	134	130	126	122	116	113	110	107	103	100	98	96	92	89	85
		12	ASD	998	891	799	729	665	617	570	535	499	472	444	422	399	363	333
			LRFD	1647	1470	1318	1203	1098	1018	941	882	823	778	732	696	659	599	550
			G'	131	126	120	116	111	108	103	100	96	94	90	88	85	81	77
		24	ASD	982	876	785	711	649	601	556	517	482	456	429	404	383	348	317
			LRFD	1620	1446	1296	1173	1070	992	917	853	796	752	707	667	631	574	523
			G'	127	122	116	111	105	102	98	93	89	87	84	80	77	73	68

TABLE 15: RDB-36 (1.5-inch Roof) - #12 Screw to the Supports - Deck Shear and Stiffness

Maximum Uniform Inward Allowable (ASD) and Factored (LRFD) - PSF																	
Pattern	Gage No.	Sidelap in o.c.		Spans (ft)													
				4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	11	12
				ASD & LRFD - Available Diaphragm Shear, plf & G' -Diaphragm stiffness kip/in														
36/4 - #12 Screw at Sidelap	22	6	ASD	493	488	483	479	475	472	470	467	465	463	462	460	459	457	454
			LRFD	793	785	778	771	765	760	756	753	749	746	743	741	739	735	732
			G'	13	15	16	18	19	21	22	23	24	26	27	28	29	32	34
		8	ASD	445	443	442	441	420	421	421	422	406	407	409	410	397	400	391
			LRFD	717	714	712	711	676	678	678	680	654	656	658	660	640	645	630
			G'	13	15	16	18	19	20	22	23	24	25	26	28	29	31	33
		12	ASD	378	385	358	366	344	352	333	341	325	332	318	326	313	309	305
			LRFD	609	620	576	589	554	566	536	549	523	535	512	524	504	497	491
			G'	13	15	16	17	18	20	21	22	23	25	25	27	28	30	31
		24	ASD	287	307	283	261	242	261	245	231	218	234	223	213	203	209	193
			LRFD	463	495	455	420	390	420	395	372	351	377	359	342	327	336	310
			G'	13	14	15	17	18	19	20	21	22	23	24	25	25	27	28
	20	6	ASD	592	592	592	592	591	588	585	583	580	578	577	575	573	571	569
			LRFD	953	953	953	953	951	946	942	938	935	931	928	926	923	920	916
			G'	20	23	25	27	29	31	33	34	36	38	40	41	43	46	49
		8	ASD	553	552	551	550	526	527	528	529	510	513	514	516	501	505	494
			LRFD	890	889	888	886	846	848	851	852	822	825	828	831	806	813	795
			G'	20	22	24	26	28	30	32	34	35	37	39	40	42	45	47
		12	ASD	471	480	449	459	433	443	420	430	411	421	403	413	397	393	388
			LRFD	759	774	722	739	697	713	677	693	662	678	650	665	640	632	625
			G'	20	22	24	26	27	29	31	33	34	36	37	39	40	42	45
		24	ASD	357	384	353	327	304	329	309	291	276	297	283	270	258	266	246
			LRFD	575	618	569	526	489	529	498	469	444	478	456	434	415	428	396
			G'	19	21	23	24	26	28	29	30	31	33	34	35	35	38	39
	18	6	ASD	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788
			LRFD	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268
			G'	38	42	46	49	53	56	59	62	65	68	70	73	75	80	84
		8	ASD	775	775	775	775	744	747	749	751	727	730	733	735	716	722	708
			LRFD	1247	1248	1248	1248	1198	1202	1205	1209	1170	1175	1180	1184	1152	1163	1140
			G'	38	42	45	49	51	55	58	61	63	65	68	70	72	77	80
		12	ASD	665	680	638	653	619	634	604	619	593	607	584	597	577	570	565
			LRFD	1071	1095	1027	1052	996	1021	972	996	954	977	940	962	928	918	910
			G'	37	40	43	47	49	52	54	57	59	62	63	66	67	70	73
		24	ASD	502	544	503	466	434	473	445	420	398	431	410	392	375	388	360
			LRFD	808	876	809	750	699	761	716	676	641	694	661	631	604	624	579
			G'	35	39	41	43	45	48	49	51	51	55	56	56	57	60	60
	16	6	ASD	870	870	870	870	870	870	870	870	870	870	870	870	870	870	870
			LRFD	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400
			G'	62	67	73	78	82	87	91	95	99	103	106	109	112	118	124
		8	ASD	870	870	870	870	870	870	870	870	870	870	870	870	870	870	870
			LRFD	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400
			G'	60	66	71	76	79	84	88	92	94	98	101	104	106	112	116
		12	ASD	805	825	781	801	764	783	751	769	741	758	733	749	726	721	716
			LRFD	1296	1328	1257	1289	1230	1260	1209	1238	1193	1220	1180	1205	1169	1161	1153
			G'	58	63	67	72	74	79	81	85	87	90	92	95	96	100	103
		24	ASD	609	667	620	578	541	592	560	531	504	548	524	501	481	500	465
			LRFD	981	1074	998	931	871	953	902	855	811	882	844	807	774	804	748
			G'	54	59	62	64	66	71	72	72	73	78	78	78	78	82	81

TABLE 15: RDB-36 (1.5-inch Roof) - #12 Screw to the Supports - Deck Shear and Stiffness (cont.)

Maximum Uniform Inward Allowable (ASD) and Factored (LRFD) - PSF																	
Pattern	Gage No.	Sidelap in o.c.		Spans (ft)													
				4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	11	12
				ASD & LRFD - Available Diaphragm Shear, plf & G' -Diaphragm stiffness kip/in														
36/5 - #12 Screw at Sidelap	22	6	ASD	493	493	493	493	493	493	493	493	493	493	493	493	493	493	493
			LRFD	793	793	793	793	793	793	793	793	793	793	793	793	793	793	793
			G'	18	20	22	24	26	28	29	31	33	34	36	37	39	41	44
		8	ASD	493	493	493	493	475	475	474	474	453	454	455	456	440	443	430
			LRFD	793	793	793	793	765	764	764	763	730	732	733	734	708	713	693
			G'	18	20	22	24	26	27	29	31	32	33	35	36	38	40	43
		12	ASD	437	441	408	414	388	394	372	380	360	368	351	358	343	337	332
			LRFD	704	711	657	667	624	635	599	611	580	592	565	577	553	543	534
			G'	18	20	22	23	25	27	28	30	31	32	33	35	36	38	40
		24	ASD	341	357	327	302	280	297	278	261	247	262	249	237	226	230	212
			LRFD	549	575	526	486	450	477	447	421	397	422	401	382	363	371	341
			G'	17	19	21	22	24	25	26	27	28	30	31	32	32	34	35
	20	6	ASD	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592
			LRFD	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953
			G'	28	31	33	36	38	41	43	45	48	50	52	54	56	59	63
		8	ASD	592	592	592	592	592	592	592	592	572	573	575	576	557	560	546
			LRFD	953	953	953	953	953	953	953	953	921	923	925	928	896	902	879
			G'	27	30	33	35	38	40	42	45	46	48	50	52	54	57	60
		12	ASD	545	551	511	520	487	497	470	480	456	466	445	454	437	429	423
			LRFD	877	887	823	837	785	800	756	772	734	750	717	732	703	691	680
			G'	27	30	32	34	36	39	40	43	44	46	47	49	50	53	56
		24	ASD	421	444	408	377	349	373	349	329	310	331	315	300	286	292	270
			LRFD	678	715	657	606	562	600	562	529	499	533	507	483	461	470	434
			G'	26	29	31	32	34	36	38	39	40	42	43	44	44	47	48
	18	6	ASD	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788
			LRFD	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268
			G'	51	56	60	65	69	72	76	79	83	86	89	91	94	99	103
		8	ASD	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788
			LRFD	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268	1268
			G'	50	55	59	63	66	70	74	77	79	82	85	88	89	94	97
		12	ASD	768	780	727	741	698	713	676	691	659	673	646	660	634	625	618
			LRFD	1237	1256	1170	1194	1124	1148	1088	1112	1061	1084	1040	1062	1021	1007	995
			G'	49	53	56	60	63	67	69	72	73	77	78	81	82	85	88
		24	ASD	589	627	577	533	496	533	500	471	446	478	455	434	414	425	393
			LRFD	948	1009	929	859	798	858	806	759	718	770	732	699	667	685	633
			G'	46	51	53	55	57	61	62	63	64	67	68	68	68	72	71
	16	6	ASD	870	870	870	870	870	870	870	870	870	870	870	870	870	870	870
			LRFD	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400
			G'	81	87	93	99	104	109	114	118	122	126	129	133	136	142	147
		8	ASD	870	870	870	870	870	870	870	870	870	870	870	870	870	870	870
			LRFD	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400
			G'	78	85	91	96	100	105	109	113	115	119	122	126	127	133	136
		12	ASD	870	870	870	870	866	870	845	865	829	849	817	835	806	798	790
			LRFD	1400	1400	1400	1400	1394	1400	1361	1393	1335	1366	1315	1344	1298	1285	1273
			G'	75	81	85	90	93	98	99	104	105	109	110	113	114	117	120
		24	ASD	709	766	708	657	613	665	627	592	560	606	578	552	528	546	506
			LRFD	1141	1233	1140	1058	986	1070	1009	953	902	976	930	888	850	879	814
			G'	69	76	78	80	81	87	87	88	87	93	92	92	91	95	93

TABLE 15: RDB-36 (1.5-inch Roof) - #12 Screw to the Supports - Deck Shear and Stiffness (cont.)

Maximum Uniform Inward Allowable (ASD) and Factored (LRFD) - PSF																	
Pattern	Gage No.	Sidelap in o.c.		Spans (ft)													
				4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	11	12
				ASD & LRFD - Available Diaphragm Shear, plf & G' -Diaphragm stiffness kip/in														
36/7 - #12 Screw at Sidelap	22	6	ASD	668	653	640	630	620	613	606	600	595	590	587	583	579	573	532
			LRFD	1075	1051	1030	1014	999	987	976	967	958	951	944	938	932	923	851
			G'	73	78	82	85	88	91	94	96	98	100	102	103	105	108	110
		8	ASD	584	576	570	565	528	527	526	525	498	499	500	500	480	483	467
			LRFD	940	928	918	909	851	848	846	845	802	804	804	806	772	777	752
			G'	71	75	79	82	84	87	89	92	92	94	96	98	98	101	102
		12	ASD	485	488	447	453	420	428	401	409	387	394	375	383	365	357	351
			LRFD	781	786	720	729	677	689	646	659	622	635	603	616	588	575	565
			G'	67	72	73	77	78	81	81	84	84	86	86	88	87	89	90
		24	ASD	372	388	353	324	297	317	294	273	256	274	259	245	233	237	218
			LRFD	599	625	568	522	479	510	473	440	412	441	417	395	375	382	351
			G'	62	67	67	68	68	72	71	71	70	73	72	71	70	73	70
	20	6	ASD	836	819	805	793	783	774	767	760	754	749	744	740	737	730	695
			LRFD	1346	1319	1296	1277	1261	1247	1235	1224	1215	1206	1198	1191	1186	1175	1112
			G'	99	104	108	112	115	118	121	123	126	127	129	131	132	135	137
		8	ASD	732	724	718	713	668	667	667	666	633	635	637	638	612	617	598
			LRFD	1178	1166	1156	1148	1075	1075	1073	1072	1020	1023	1025	1027	986	993	963
			G'	95	100	104	108	109	112	115	117	117	119	121	123	122	125	126
		12	ASD	607	613	562	571	531	542	508	519	491	502	477	488	466	457	450
			LRFD	977	986	905	920	855	872	818	836	790	808	769	785	750	736	724
			G'	90	95	95	99	99	103	102	105	104	107	106	109	107	108	109
		24	ASD	460	484	441	404	373	398	372	347	325	349	329	311	296	303	278
			LRFD	741	780	710	651	601	641	599	559	523	562	529	501	477	488	447
			G'	81	87	87	86	85	89	88	87	85	89	88	86	85	87	84
	18	6	ASD	1186	1166	1150	1136	1123	1113	1104	1097	1090	1083	1078	1073	1068	1060	1054
			LRFD	1910	1877	1851	1828	1809	1793	1778	1765	1754	1744	1735	1728	1720	1707	1697
			G'	152	157	161	165	168	171	173	175	177	179	180	182	183	185	187
		8	ASD	1042	1035	1029	1025	963	964	965	966	921	925	928	930	895	903	877
			LRFD	1677	1666	1657	1650	1551	1553	1554	1555	1483	1489	1494	1498	1441	1453	1412
			G'	144	149	154	157	156	159	162	165	163	165	167	168	166	169	169
		12	ASD	862	876	806	823	767	784	737	755	715	733	698	714	683	672	662
			LRFD	1388	1410	1297	1324	1234	1262	1187	1216	1152	1180	1124	1150	1100	1082	1066
			G'	133	139	137	142	140	144	141	145	142	145	143	146	143	143	144
		24	ASD	644	686	626	575	531	571	534	501	472	507	481	457	433	446	408
			LRFD	1037	1105	1008	925	855	920	860	806	760	816	774	736	697	718	657
			G'	117	124	122	119	116	122	119	115	112	118	115	112	109	112	107
	16	6	ASD	1444	1427	1412	1400	1390	1381	1373	1367	1360	1355	1350	1346	1342	1336	1330
			LRFD	2325	2297	2274	2254	2238	2223	2211	2200	2190	2182	2174	2167	2161	2150	2141
			G'	204	209	213	216	218	221	222	224	226	227	228	229	230	231	233
		8	ASD	1281	1279	1277	1276	1208	1213	1217	1220	1169	1175	1180	1185	1145	1157	1128
			LRFD	2062	2059	2057	2055	1945	1952	1959	1964	1882	1892	1901	1908	1843	1862	1817
			G'	192	197	201	204	201	204	206	208	205	207	208	210	207	210	208
		12	ASD	1063	1088	1007	1033	968	994	939	964	917	941	899	922	885	873	863
			LRFD	1712	1751	1621	1664	1558	1600	1511	1553	1476	1515	1448	1484	1425	1406	1390
			G'	174	180	176	181	177	181	177	181	176	180	176	179	175	175	174
		24	ASD	780	846	774	713	660	718	673	633	597	647	614	584	557	576	531
			LRFD	1256	1362	1246	1147	1062	1156	1083	1019	960	1041	988	941	897	927	855
			G'	150	159	154	148	143	150	145	141	136	143	139	135	131	133	126

TABLE 16: RDB-36 (1.5-inch Roof) - #14 Screw to the Supports - Deck Shear and Stiffness

Maximum Uniform Inward Allowable (ASD) and Factored (LRFD) - PSF																	
Pattern	Gage No.	Sidelap in o.c.		Spans (ft)													
				4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	11	12
				ASD & LRFD - Available Diaphragm Shear, plf & G' -Diaphragm stiffness kip/in														
36/4 - #12 Screw at Sidelap	22	6	ASD	543	535	528	523	518	513	510	507	504	501	499	497	495	492	489
			LRFD	874	861	851	841	834	827	821	816	811	807	804	800	797	792	788
			G'	13	15	16	18	19	21	22	23	24	26	27	28	29	32	34
		8	ASD	487	483	481	479	453	453	454	454	435	436	437	438	423	427	416
			LRFD	783	778	774	771	729	730	731	731	700	702	704	706	682	687	669
			G'	13	15	16	18	19	20	22	23	24	25	26	28	29	31	33
		12	ASD	412	417	387	394	369	377	356	363	345	353	337	345	331	325	320
			LRFD	664	672	623	634	594	606	573	585	556	568	543	555	533	524	516
			G'	13	15	16	17	18	20	21	22	23	25	25	27	28	30	31
		24	ASD	316	334	307	283	262	280	263	247	231	250	237	224	213	220	201
			LRFD	509	538	494	455	422	452	424	398	372	402	382	361	343	354	324
			G'	13	14	15	17	18	19	20	21	22	23	24	25	25	27	28
	20	6	ASD	673	665	657	651	646	642	638	634	631	628	626	624	622	618	615
			LRFD	1084	1070	1058	1049	1040	1033	1027	1021	1016	1012	1008	1005	1001	995	991
			G'	20	23	25	27	29	31	33	34	36	38	40	41	43	46	49
		8	ASD	606	603	600	599	569	570	570	571	548	550	552	553	536	540	527
			LRFD	975	970	967	964	916	917	918	919	883	886	889	891	862	869	848
			G'	20	22	24	26	28	30	32	34	35	37	39	40	42	45	47
		12	ASD	513	522	485	494	464	475	449	460	437	447	428	438	420	414	409
			LRFD	827	840	781	796	748	764	723	740	704	720	690	705	677	667	658
			G'	20	22	24	26	27	29	31	33	34	36	37	39	40	42	45
		24	ASD	392	417	383	354	328	353	331	311	294	316	300	286	272	280	258
			LRFD	631	671	617	570	529	568	533	501	473	508	483	461	438	451	416
			G'	19	21	23	24	26	28	29	30	31	33	34	35	35	38	39
	18	6	ASD	912	912	912	912	910	905	900	897	893	890	887	885	883	879	876
			LRFD	1468	1468	1468	1468	1464	1457	1450	1443	1439	1434	1429	1425	1422	1415	1410
			G'	38	42	46	49	53	56	59	62	65	68	70	73	75	80	84
		8	ASD	851	850	848	847	809	811	813	814	785	789	791	794	770	777	760
			LRFD	1371	1368	1366	1364	1302	1306	1309	1311	1264	1270	1274	1278	1240	1251	1224
			G'	38	42	45	49	51	55	58	61	63	65	68	70	72	77	80
		12	ASD	726	740	690	706	665	681	647	662	632	647	621	635	612	604	597
			LRFD	1168	1191	1112	1137	1071	1097	1041	1066	1018	1042	1000	1023	985	972	962
			G'	37	40	43	47	49	52	54	57	59	62	63	66	67	70	73
		24	ASD	550	590	544	503	468	506	476	448	424	457	435	415	397	408	378
			LRFD	885	951	876	810	753	815	766	722	683	736	701	668	638	657	608
			G'	35	39	41	43	45	48	49	51	51	55	56	56	57	60	60
	16	6	ASD	1130	1130	1130	1130	1130	1130	1130	1130	1130	1130	1130	1130	1130	1130	1130
			LRFD	1820	1820	1820	1820	1820	1820	1820	1820	1820	1820	1820	1820	1820	1820	1820
			G'	62	67	73	78	82	87	91	95	99	103	106	109	112	118	124
		8	ASD	1102	1102	1102	1102	1057	1060	1063	1066	1031	1036	1040	1043	1015	1023	1004
			LRFD	1775	1775	1775	1775	1701	1707	1712	1716	1660	1667	1674	1679	1634	1648	1616
			G'	60	66	71	76	79	84	88	92	94	98	101	104	106	112	116
		12	ASD	945	966	905	927	877	898	855	877	839	859	826	845	815	807	799
			LRFD	1521	1555	1457	1492	1411	1446	1377	1411	1351	1383	1329	1360	1313	1299	1286
			G'	58	63	67	72	74	79	81	85	87	90	92	95	96	100	103
		24	ASD	713	772	713	661	615	669	630	594	563	609	580	554	530	547	507
			LRFD	1148	1243	1147	1064	991	1077	1014	957	906	981	935	892	853	881	817
			G'	54	59	62	64	66	71	72	72	73	78	78	78	78	82	81

TABLE 16: RDB-36 (1.5-inch Roof) - #14 Screw to the Supports - Deck Shear and Stiffness (cont.)

Maximum Uniform Inward Allowable (ASD) and Factored (LRFD) - PSF																	
Pattern	Gage No.	Sidelap in o.c.		Spans (ft)													
				4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	11	12
				ASD & LRFD - Available Diaphragm Shear, plf & G' -Diaphragm stiffness kip/in														
36/5 - #12 Screw at Sidelap	22	6	ASD	570	570	570	570	570	570	570	570	566	562	558	555	552	547	532
			LRFD	918	918	918	918	918	918	918	918	911	904	899	893	888	880	851
			G'	18	20	22	24	26	28	29	31	33	34	36	37	39	41	44
		8	ASD	562	554	548	543	511	510	508	507	484	484	484	485	467	468	454
			LRFD	904	893	883	874	823	820	818	816	779	779	780	781	751	754	732
			G'	18	20	22	24	26	27	29	31	32	33	35	36	38	40	43
		12	ASD	478	480	443	447	417	423	398	405	384	390	372	379	363	355	349
			LRFD	770	772	713	720	671	681	641	652	618	629	599	610	585	572	561
			G'	18	20	22	23	25	27	28	30	31	32	33	35	36	38	40
		24	ASD	377	391	357	329	304	321	300	281	263	280	265	251	239	243	223
			LRFD	608	629	575	530	490	517	483	453	424	452	427	405	384	391	358
			G'	17	19	21	22	24	25	26	27	28	30	31	32	32	34	35
	20	6	ASD	685	685	685	685	685	685	685	685	685	685	685	685	685	685	685
			LRFD	1103	1103	1103	1103	1103	1103	1103	1103	1103	1103	1103	1103	1103	1103	1103
			G'	28	31	33	36	38	41	43	45	48	50	52	54	56	59	63
		8	ASD	685	685	685	681	643	641	640	640	611	612	613	614	592	595	578
			LRFD	1103	1103	1103	1096	1035	1033	1031	1030	984	986	987	988	953	958	930
			G'	27	30	33	35	38	40	42	45	46	48	50	52	54	57	60
		12	ASD	595	599	553	561	524	533	502	511	485	495	472	481	461	452	444
			LRFD	958	964	891	903	844	858	809	823	781	797	760	775	743	728	715
			G'	27	30	32	34	36	39	40	43	44	46	47	49	50	53	56
		24	ASD	466	486	445	410	380	402	376	353	333	354	336	319	303	310	283
			LRFD	750	782	716	659	611	647	606	569	537	570	541	513	487	498	456
			G'	26	29	31	32	34	36	38	39	40	42	43	44	44	47	48
	18	6	ASD	912	912	912	912	912	912	912	912	912	912	912	912	912	912	912
			LRFD	1468	1468	1468	1468	1468	1468	1468	1468	1468	1468	1468	1468	1468	1468	1468
			G'	51	56	60	65	69	72	76	79	83	86	89	91	94	99	103
		8	ASD	912	912	912	912	912	912	912	912	880	882	884	886	856	862	840
			LRFD	1468	1468	1468	1468	1468	1468	1468	1468	1417	1420	1424	1427	1378	1388	1352
			G'	50	55	59	63	66	70	74	77	79	82	85	88	89	94	97
		12	ASD	839	848	787	800	750	765	723	738	702	717	685	699	671	660	650
			LRFD	1350	1365	1267	1288	1208	1231	1163	1188	1130	1154	1103	1126	1081	1063	1047
			G'	49	53	56	60	63	67	69	72	73	77	78	81	82	85	88
		24	ASD	649	684	627	579	537	573	537	506	477	510	484	461	440	450	415
			LRFD	1044	1101	1010	932	865	923	865	814	769	820	780	743	708	724	668
			G'	46	51	53	55	57	61	62	63	64	67	68	68	68	72	71
	16	6	ASD	1130	1130	1130	1130	1130	1130	1130	1130	1130	1130	1130	1130	1130	1130	1130
			LRFD	1820	1820	1820	1820	1820	1820	1820	1820	1820	1820	1820	1820	1820	1820	1820
			G'	81	87	93	99	104	109	114	118	122	126	129	133	136	142	147
		8	ASD	1130	1130	1130	1130	1130	1130	1130	1130	1130	1130	1130	1130	1130	1130	1117
			LRFD	1820	1820	1820	1820	1820	1820	1820	1820	1820	1820	1820	1820	1820	1820	1798
			G'	78	85	91	96	100	105	109	113	115	119	122	126	127	133	136
		12	ASD	1091	1107	1031	1051	989	1010	957	978	932	953	913	933	897	883	872
			LRFD	1757	1783	1660	1693	1592	1625	1541	1574	1501	1534	1469	1502	1443	1422	1404
			G'	75	81	85	90	93	98	99	104	105	109	110	113	114	117	120
		24	ASD	838	890	819	757	703	755	709	667	631	677	643	613	586	600	555
			LRFD	1349	1434	1319	1219	1132	1215	1141	1075	1016	1089	1036	987	943	967	893
			G'	69	76	78	80	81	87	87	88	87	93	92	92	91	95	93

TABLE 16: RDB-36 (1.5-inch Roof) - #14 Screw to the Supports - Deck Shear and Stiffness (cont.)

Maximum Uniform Inward Allowable (ASD) and Factored (LRFD) - PSF																	
Pattern	Gage No.	Sidelap in o.c.		Spans (ft)													
				4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	11	12
				ASD & LRFD - Available Diaphragm Shear, plf & G' -Diaphragm stiffness kip/in														
36/7 - #12 Screw at Sidelap	22	6	ASD	722	703	687	673	662	653	644	637	630	624	619	614	610	603	532
			LRFD	1163	1132	1106	1084	1066	1051	1037	1025	1014	1005	996	989	982	970	851
			G'	73	78	82	85	88	91	94	96	98	100	102	103	105	108	110
		8	ASD	631	620	611	603	563	560	557	555	526	526	526	526	503	505	488
			LRFD	1016	998	984	972	906	901	897	894	847	846	846	846	810	813	785
			G'	71	75	79	82	84	87	89	92	92	94	96	98	98	101	102
		12	ASD	527	527	482	486	450	456	427	433	409	416	395	402	384	375	367
			LRFD	849	849	776	782	725	734	687	698	659	670	636	648	618	603	591
			G'	67	72	73	77	78	81	81	84	84	86	86	88	87	89	90
		24	ASD	411	424	386	352	322	340	315	293	273	290	274	260	247	250	230
			LRFD	662	683	621	567	518	547	507	471	440	468	442	419	398	403	370
			G'	62	67	67	68	68	72	71	71	70	73	72	71	70	73	70
	20	6	ASD	905	883	865	850	837	826	816	807	800	793	787	782	777	769	695
			LRFD	1457	1422	1392	1368	1348	1329	1314	1300	1288	1278	1268	1259	1252	1238	1112
			G'	99	104	108	112	115	118	121	123	126	127	129	131	132	135	137
		8	ASD	791	779	770	762	711	709	707	705	669	670	670	670	643	646	625
			LRFD	1273	1254	1239	1226	1145	1142	1138	1135	1077	1078	1079	1079	1035	1040	1006
			G'	95	100	104	108	109	112	115	117	117	119	121	123	122	125	126
		12	ASD	659	661	605	612	567	577	540	550	519	529	503	513	490	479	470
			LRFD	1061	1064	974	985	914	928	869	886	836	852	809	825	788	771	756
			G'	90	95	95	99	99	103	102	105	104	107	106	109	107	108	109
		24	ASD	507	528	480	440	404	429	398	370	347	369	348	330	313	319	292
			LRFD	817	850	773	708	651	690	641	596	558	594	560	531	504	513	470
			G'	81	87	87	86	85	89	88	87	85	89	88	86	85	87	84
	18	6	ASD	1287	1260	1239	1220	1205	1191	1180	1170	1160	1152	1145	1139	1133	1123	1068
			LRFD	2072	2029	1994	1965	1940	1918	1899	1883	1868	1855	1844	1833	1824	1807	1708
			G'	152	157	161	165	168	171	173	175	177	179	180	182	183	185	187
		8	ASD	1126	1114	1105	1097	1027	1027	1026	1025	974	977	979	981	941	948	919
			LRFD	1813	1794	1779	1766	1654	1653	1651	1650	1569	1573	1576	1579	1516	1527	1480
			G'	144	149	154	157	156	159	162	165	163	165	167	168	166	169	169
		12	ASD	934	943	865	879	817	833	782	799	755	772	734	750	717	703	691
			LRFD	1504	1518	1392	1415	1315	1342	1259	1286	1216	1243	1182	1208	1154	1132	1113
			G'	133	139	137	142	140	144	141	145	142	145	143	146	143	143	144
		24	ASD	708	745	679	623	575	613	572	537	502	539	509	481	456	466	427
			LRFD	1140	1200	1093	1002	925	986	921	864	809	867	819	774	734	750	688
			G'	117	124	122	119	116	122	119	115	112	118	115	112	109	112	107
	16	6	ASD	1683	1654	1630	1609	1592	1577	1563	1552	1542	1533	1525	1517	1511	1499	1490
			LRFD	2710	2663	2624	2591	2563	2538	2517	2499	2482	2468	2455	2443	2433	2414	2398
			G'	204	209	213	216	218	221	222	224	226	227	228	229	230	231	233
		8	ASD	1477	1467	1458	1451	1363	1364	1365	1366	1302	1307	1310	1314	1263	1274	1237
			LRFD	2379	2362	2348	2336	2195	2197	2198	2199	2096	2104	2110	2115	2034	2052	1992
			G'	192	197	201	204	201	204	206	208	205	207	208	210	207	210	208
		12	ASD	1223	1241	1141	1164	1084	1109	1042	1067	1010	1034	985	1008	964	947	933
			LRFD	1969	1998	1838	1874	1745	1785	1678	1718	1626	1665	1586	1623	1553	1525	1503
			G'	174	180	176	181	177	181	177	181	176	180	176	179	175	175	174
		24	ASD	916	974	888	815	753	809	756	709	668	717	680	646	613	630	576
			LRFD	1475	1568	1429	1313	1212	1302	1217	1142	1075	1154	1094	1040	988	1014	927
			G'	150	159	154	148	143	150	145	141	136	143	139	135	131	133	126

TABLE 17: RD3N-32 (3-inch Roof) - Bare Deck Superimposed Loads

Maximum Uniform Inward Allowable (ASD) and Factored (LRFD) - PSF																	
Gage No.	Span	Limit condition	Spans (ft)														
			4	5	6	7	8	9	10	11	12	13	14	15	16	18	20
22	1-Span	ASD	446	285	198	145	111	88	71	59	50	42	36	32	28	22	18
		LRFD	670	428	298	219	167	132	107	89	74	63	55	48	42	33	27
		L / 360	510	261	151	95	64	45	33	25	19	15	12	10	8	6	4
		L / 240	765	392	227	143	96	67	49	37	28	22	18	15	12	8	6
		L / 180	1020	522	302	190	128	90	65	49	38	30	24	19	16	11	8
		L / 120	1530	784	453	286	191	134	98	74	57	45	36	29	24	17	12
	2-Span	ASD	300	240	200	153	118	94	76	63	53	45	39	34	30	23	19
		LRFD	447	357	298	230	177	141	115	95	80	68	59	51	45	35	29
		L / 360	1311	671	388	245	164	115	84	63	49	38	31	25	20	14	10
		L / 240	1967	1007	583	367	246	173	126	95	73	57	46	37	31	22	16
		L / 180	2622	1342	777	489	328	230	168	126	97	76	61	50	41	29	21
		L / 120	3933	2014	1165	734	492	345	252	189	146	115	92	75	61	43	31
	3-Span	ASD	341	273	227	189	146	116	94	78	66	56	49	42	37	29	24
		LRFD	507	406	338	284	220	175	142	118	99	85	73	64	56	44	36
		L / 360	1028	526	304	192	128	90	66	49	38	30	24	19	16	11	8
		L / 240	1541	789	457	288	193	135	99	74	57	45	36	29	24	17	12
		L / 180	2055	1052	609	383	257	180	132	99	76	60	48	39	32	23	16
		L / 120	3083	1578	913	575	385	271	197	148	114	90	72	58	48	34	25

Maximum Uniform Inward Allowable (ASD) and Factored (LRFD) - PSF																	
Gage No.	Span	Limit condition	Spans (ft)														
			4	5	6	7	8	9	10	11	12	13	14	15	16	18	20
20	1-Span	ASD	572	366	254	187	143	113	91	76	64	54	47	41	36	28	23
		LRFD	859	549	382	280	215	170	137	114	95	81	70	61	54	42	34
		L / 360	630	322	187	117	79	55	40	30	23	18	15	12	10	7	5
		L / 240	944	484	280	176	118	83	60	45	35	28	22	18	15	10	8
		L / 180	1259	645	373	235	157	111	81	61	47	37	29	24	20	14	10
		L / 120	1889	967	560	352	236	166	121	91	70	55	44	36	30	21	15
	2-Span	ASD	446	356	266	197	152	120	98	81	68	58	50	43	38	30	24
		LRFD	663	530	401	297	229	181	147	122	102	87	75	66	58	45	37
		L / 360	1604	821	475	299	200	141	103	77	59	47	37	30	25	18	13
		L / 240	2406	1232	713	449	301	211	154	116	89	70	56	46	38	26	19
		L / 180	3208	1642	950	599	401	282	205	154	119	93	75	61	50	35	26
		L / 120	4811	2463	1426	898	601	422	308	231	178	140	112	91	75	53	38
	3-Span	ASD	506	405	328	244	188	150	122	101	85	72	62	54	48	38	30
		LRFD	753	603	494	368	284	225	183	152	128	109	94	82	72	57	46
		L / 360	1257	644	372	235	157	110	80	60	47	37	29	24	20	14	10
		L / 240	1886	965	559	352	236	166	121	91	70	55	44	36	29	21	15
		L / 180	2514	1287	745	469	314	221	161	121	93	73	59	48	39	28	20
		L / 120	3771	1931	1117	704	471	331	241	181	140	110	88	72	59	41	30

TABLE 17: RD3N-32 (3-inch Roof) - Bare Deck Superimposed Loads (cont.)

Maximum Uniform Inward Allowable (ASD) and Factored (LRFD) - PSF																
Gage No.	Span	Limit condition	Spans (ft)													
			4	5	6	7	8	9	10	11	12	13	14	15	16	18	20
18	1-Span	ASD	850	544	378	278	213	168	136	112	94	80	69	60	53	42	34
		LRFD	1278	818	568	417	319	252	204	169	142	121	104	91	80	63	51
		L / 360	875	448	259	163	109	77	56	42	32	25	20	17	14	10	7
		L / 240	1312	672	389	245	164	115	84	63	49	38	31	25	21	14	10
		L / 180	1750	896	518	326	219	154	112	84	65	51	41	33	27	19	14
		L / 120	2624	1344	778	490	328	230	168	126	97	76	61	50	41	29	21
	2-Span	ASD	782	555	390	289	222	176	143	118	99	85	73	63	56	44	36
		LRFD	1164	836	587	434	334	265	215	178	149	127	110	96	84	66	54
		L / 360	2173	1113	644	405	272	191	139	104	80	63	51	41	34	24	17
		L / 240	3259	1669	966	608	407	286	209	157	121	95	76	62	51	36	26
		L / 180	4346	2225	1288	811	543	382	278	209	161	127	101	82	68	48	35
		L / 120	6519	3338	1932	1216	815	572	417	313	241	190	152	124	102	72	52
	3-Span	ASD	889	683	482	358	276	219	178	147	124	106	91	79	70	55	45
		LRFD	1322	1029	726	538	415	329	267	221	186	159	137	120	105	83	67
		L / 360	1703	872	505	318	213	150	109	82	63	50	40	32	27	19	14
		L / 240	2555	1308	757	477	319	224	164	123	95	74	60	48	40	28	20
		L / 180	3406	1744	1009	636	426	299	218	164	126	99	79	65	53	37	27
		L / 120	5109	2616	1514	953	639	449	327	246	189	149	119	97	80	56	41

Maximum Uniform Inward Allowable (ASD) and Factored (LRFD) - PSF																
Gage No.	Span	Limit condition	Spans (ft)													
			4	5	6	7	8	9	10	11	12	13	14	15	16	18	20
16	1-Span	ASD	1166	746	518	381	291	230	186	154	130	110	95	83	73	58	47
		LRFD	1752	1121	779	572	438	346	280	232	195	166	143	125	110	87	70
		L / 360	1123	575	333	209	140	99	72	54	42	33	26	21	18	12	9
		L / 240	1684	862	499	314	210	148	108	81	62	49	39	32	26	18	13
		L / 180	2245	1150	665	419	281	197	144	108	83	65	52	43	35	25	18
		L / 120	3368	1724	998	628	421	296	216	162	125	98	79	64	53	37	27
	2-Span	ASD	1131	737	517	383	294	233	189	156	131	112	97	84	74	58	47
		LRFD	1702	1110	779	575	442	350	284	235	198	169	145	127	111	88	71
		L / 360	2737	1401	811	511	342	240	175	132	101	80	64	52	43	30	22
		L / 240	4106	2102	1217	766	513	360	263	197	152	120	96	78	64	45	33
		L / 180	5474	2803	1622	1021	684	481	350	263	203	159	128	104	86	60	44
		L / 120	8212	4204	2433	1532	1026	721	526	395	304	239	192	156	128	90	66
	3-Span	ASD	1322	909	640	474	365	290	235	195	164	140	121	105	92	73	59
		LRFD	1966	1367	963	714	550	436	354	293	247	210	182	158	139	110	89
		L / 360	2145	1098	636	400	268	188	137	103	79	62	50	41	34	24	17
		L / 240	3218	1648	953	600	402	283	206	155	119	94	75	61	50	35	26
		L / 180	4291	2197	1271	801	536	377	275	206	159	125	100	81	67	47	34
		L / 120	6436	3295	1907	1201	805	565	412	309	238	187	150	122	101	71	51

TABLE 18: RD3N-32 (3-inch Roof) - 3/4" Arc Spot Welds to the Supports - Deck Shear and Stiffness

Maximum Uniform Inward Allowable (ASD) and Factored (LRFD) - PSF																	
Pattern	Gage No.	Sidelap in o.c.		Spans (ft)													
				4	5	6	7	8	9	10	11	12	13	14	15	16	18	20
				ASD & LRFD - Available Diaphragm Shear, plf & G' -Diaphragm stiffness kip/in														
32/5 - 1.5" TSW at Sidelap	22	6	ASD	769	769	769	769	769	769	769	769	769	769	769	769	769	685	555
			LRFD	1230	1230	1230	1230	1230	1230	1230	1230	1230	1230	1230	1230	1230	1095	887
			G'	39	46	53	58	64	69	73	77	81	84	87	90	93	98	103
		8	ASD	769	769	769	769	769	769	769	769	769	769	769	769	769	685	555
			LRFD	1230	1230	1230	1230	1230	1230	1230	1230	1230	1230	1230	1230	1230	1095	887
			G'	39	46	52	58	62	67	71	75	78	82	85	88	90	95	99
		12	ASD	769	769	769	769	769	769	769	769	769	769	769	769	769	685	555
			LRFD	1230	1230	1230	1230	1230	1230	1230	1230	1230	1230	1230	1230	1230	1095	887
			G'	38	44	50	55	60	64	68	71	74	77	80	82	84	89	92
		24	ASD	702	726	630	659	591	619	567	593	551	574	539	560	530	523	517
			LRFD	1159	1198	1039	1087	975	1021	936	978	909	947	889	924	875	863	854
			G'	36	42	46	52	54	58	60	64	65	68	69	72	72	75	77
	20	6	ASD	1079	1079	1079	1079	1079	1079	1079	1079	1079	1079	1079	1079	1079	899	728
			LRFD	1726	1726	1726	1726	1726	1726	1726	1726	1726	1726	1726	1726	1726	1438	1165
			G'	57	67	75	83	89	95	100	105	110	114	118	121	124	130	135
		8	ASD	1079	1079	1079	1079	1079	1079	1079	1079	1079	1079	1079	1079	1079	899	728
			LRFD	1726	1726	1726	1726	1726	1726	1726	1726	1726	1726	1726	1726	1726	1438	1165
			G'	56	66	73	81	87	93	97	102	106	110	113	117	119	124	129
		12	ASD	1079	1079	1079	1079	1079	1079	1079	1079	1079	1079	1079	1079	1079	899	728
			LRFD	1726	1726	1726	1726	1726	1726	1726	1726	1726	1726	1726	1726	1726	1438	1165
			G'	55	63	70	77	82	87	92	96	99	102	105	108	110	115	118
		24	ASD	941	968	836	872	780	815	745	778	721	751	704	732	692	681	673
			LRFD	1553	1597	1379	1438	1286	1345	1229	1283	1190	1240	1162	1207	1141	1124	1111
			G'	51	60	64	70	73	78	79	84	84	88	88	92	91	94	96
	18	6	ASD	1823	1823	1823	1823	1823	1823	1823	1823	1823	1823	1823	1823	1750	1382	1120
			LRFD	2917	2917	2917	2917	2917	2917	2917	2917	2917	2917	2917	2917	2799	2211	1791
			G'	100	114	126	136	144	152	159	165	170	174	179	183	186	192	198
		8	ASD	1823	1823	1823	1823	1823	1823	1823	1823	1823	1823	1823	1823	1750	1382	1120
			LRFD	2917	2917	2917	2917	2917	2917	2917	2917	2917	2917	2917	2917	2799	2211	1791
			G'	97	111	121	132	139	147	152	158	162	167	170	174	176	182	186
		12	ASD	1823	1823	1805	1774	1749	1730	1715	1702	1691	1681	1673	1666	1660	1382	1120
			LRFD	2917	2917	2917	2917	2886	2855	2829	2808	2790	2774	2761	2749	2740	2211	1791
			G'	93	105	115	123	129	135	140	144	148	152	155	157	160	164	168
		24	ASD	1382	1420	1226	1279	1143	1195	1092	1140	1058	1102	1032	1073	1013	999	987
			LRFD	2280	2344	2023	2110	1887	1972	1802	1882	1745	1818	1703	1770	1672	1648	1628
			G'	85	97	100	109	110	117	116	122	121	126	124	129	127	129	131
	16	6	ASD	2743	2743	2743	2743	2743	2743	2743	2743	2743	2743	2743	2743	2450	1936	1568
			LRFD	4389	4389	4389	4389	4389	4389	4389	4389	4389	4389	4389	4389	3920	3098	2509
			G'	149	166	181	193	203	211	218	225	230	235	240	244	247	254	259
		8	ASD	2743	2743	2743	2743	2742	2743	2718	2743	2701	2725	2689	2711	2450	1936	1568
			LRFD	4389	4389	4389	4389	4389	4389	4389	4389	4389	4389	4389	4389	3920	3098	2509
			G'	144	162	173	185	193	202	207	214	217	223	226	230	232	237	242
		12	ASD	2442	2373	2325	2289	2262	2240	2222	2208	2196	2185	2176	2168	2161	1936	1568
			LRFD	4029	3915	3836	3777	3732	3696	3667	3643	3623	3605	3590	3577	3566	3098	2509
			G'	136	150	161	170	177	183	188	192	196	199	202	205	207	211	214
		24	ASD	1773	1833	1588	1662	1490	1560	1429	1494	1387	1446	1357	1411	1335	1317	1303
			LRFD	2926	3024	2621	2742	2458	2575	2357	2465	2289	2386	2240	2328	2202	2173	2149
			G'	121	135	136	147	145	153	151	158	154	161	157	163	159	161	162

TABLE 18: RD3N-32 (3-inch Roof) - 3/4" Arc Spot Welds to the Supports - Deck Shear and Stiffness (cont.)

Maximum Uniform Inward Allowable (ASD) and Factored (LRFD) - PSF																	
Pattern	Gage No.	Sidelap in o.c.		Spans (ft)													
				4	5	6	7	8	9	10	11	12	13	14	15	16	18	20
				ASD & LRFD - Available Diaphragm Shear, plf & G' -Diaphragm stiffness kip/in														
32/5 - #12 at Sidelap	22	6	ASD	665	621	589	566	549	535	524	515	507	500	495	490	486	478	472
			LRFD	1098	1024	972	934	906	883	865	849	837	826	816	809	801	789	779
			G'	37	43	49	53	58	61	65	68	71	73	76	78	80	83	86
		8	ASD	585	554	502	491	459	454	432	431	414	414	401	402	391	383	377
			LRFD	965	914	829	810	757	750	713	711	683	684	661	663	645	632	622
			G'	36	42	47	52	55	59	62	65	67	69	71	73	74	77	80
		12	ASD	492	436	400	374	355	340	327	318	309	302	296	291	287	279	273
			LRFD	812	720	660	617	585	560	540	524	510	499	489	481	473	460	450
			G'	35	40	45	48	51	54	56	59	60	62	63	65	66	68	70
		24	ASD	383	349	291	280	245	242	218	218	200	201	187	189	177	170	164
			LRFD	631	575	480	463	405	400	360	360	330	332	309	312	293	280	270
			G'	33	38	40	44	45	47	47	50	49	51	51	52	52	52	53
	20	6	ASD	905	841	796	764	739	719	703	690	679	670	662	655	649	638	630
			LRFD	1493	1388	1314	1260	1219	1187	1161	1139	1120	1105	1092	1080	1070	1053	1040
			G'	53	61	68	74	79	83	87	90	93	96	98	101	103	106	109
		8	ASD	797	751	680	663	618	611	580	578	555	555	536	537	522	511	502
			LRFD	1316	1240	1122	1093	1020	1009	958	954	915	915	885	887	862	844	829
			G'	52	60	65	71	74	79	81	85	87	90	91	94	95	98	100
		12	ASD	675	592	541	505	478	457	440	426	415	405	396	389	383	372	364
			LRFD	1113	977	893	833	789	754	726	703	684	668	654	642	631	614	600
			G'	50	56	61	65	68	71	73	76	77	79	80	82	83	85	86
		24	ASD	531	477	398	382	334	329	296	295	271	272	253	255	239	228	220
			LRFD	876	787	656	630	551	543	488	487	447	449	417	421	394	377	363
			G'	46	52	54	57	57	61	60	62	61	63	62	64	63	63	63
	18	6	ASD	1359	1266	1201	1154	1117	1089	1066	1047	1031	1017	1005	995	986	971	959
			LRFD	2242	2089	1982	1904	1844	1797	1758	1727	1701	1678	1659	1642	1627	1602	1582
			G'	90	100	109	116	121	126	130	134	137	140	142	145	147	150	153
		8	ASD	1195	1130	1024	1000	934	925	879	876	841	842	814	816	794	778	765
			LRFD	1972	1864	1690	1649	1542	1526	1450	1445	1388	1389	1344	1347	1310	1283	1262
			G'	86	97	103	110	113	118	120	124	125	129	129	132	133	135	137
		12	ASD	1018	893	816	762	722	691	666	646	629	614	602	591	582	567	554
			LRFD	1680	1474	1346	1257	1191	1140	1099	1065	1037	1014	993	976	960	935	914
			G'	81	88	94	98	101	103	105	107	109	110	111	112	113	114	115
		24	ASD	800	716	595	573	501	495	445	445	408	410	381	385	361	346	333
			LRFD	1321	1182	981	945	827	816	734	734	673	677	629	635	596	570	549
			G'	73	80	79	84	81	85	82	85	82	85	82	84	82	81	81
	16	6	ASD	1775	1666	1590	1534	1491	1458	1430	1408	1389	1373	1359	1347	1336	1319	1304
			LRFD	2928	2748	2623	2531	2461	2405	2360	2323	2292	2265	2242	2223	2205	2176	2152
			G'	130	142	151	158	164	169	173	176	179	181	184	186	187	190	193
		8	ASD	1555	1483	1352	1327	1244	1236	1178	1177	1133	1136	1100	1105	1076	1056	1041
			LRFD	2566	2447	2230	2189	2053	2039	1943	1943	1869	1874	1816	1823	1775	1743	1718
			G'	123	135	140	148	150	156	157	161	161	165	165	168	167	169	171
		12	ASD	1314	1181	1078	1012	963	925	894	869	848	830	815	802	791	772	756
			LRFD	2168	1949	1778	1670	1589	1526	1475	1434	1399	1370	1345	1324	1305	1273	1248
			G'	114	121	126	129	131	133	135	136	137	138	138	139	139	140	141
		24	ASD	1030	934	769	747	654	650	585	588	539	545	506	514	481	462	447
			LRFD	1699	1541	1268	1233	1079	1072	965	970	889	899	835	848	794	763	738
			G'	100	107	103	108	103	106	102	105	100	103	99	102	98	97	97

TABLE 18: RD3N-32 (3-inch Roof) - 3/4" Arc Spot Welds to the Supports - Deck Shear and Stiffness (cont.)

Maximum Uniform Inward Allowable (ASD) and Factored (LRFD) - PSF																	
Pattern	Gage No.	Sidelap in o.c.		Spans (ft)													
				4	5	6	7	8	9	10	11	12	13	14	15	16	18	20
				ASD & LRFD - Available Diaphragm Shear, plf & G' -Diaphragm stiffness kip/in														
32/5 - BP at Sidelap	22	6	ASD	340	284	248	222	203	188	175	166	157	150	144	139	135	127	121
			LRFD	561	469	409	366	334	310	289	273	260	248	238	230	222	210	200
			G'	31	34	35	36	37	37	37	37	37	37	37	36	36	36	35
		8	ASD	323	271	231	208	186	173	159	150	141	135	128	124	118	110	104
			LRFD	534	447	382	343	307	285	262	248	232	223	211	204	195	182	172
			G'	31	33	34	35	35	35	35	35	34	34	34	33	33	32	31
		12	ASD	307	251	215	189	169	154	142	132	124	117	111	106	101	94	88
			LRFD	506	414	354	311	279	255	234	218	205	193	183	175	167	155	145
			G'	30	32	33	33	33	33	32	32	31	31	30	30	29	28	27
		24	ASD	290	238	198	174	153	139	125	117	107	102	94	90	85	77	71
			LRFD	479	392	327	288	252	230	207	193	177	168	156	149	140	127	117
			G'	29	31	32	32	31	31	30	29	28	27	26	26	25	23	22
	20	6	ASD	454	371	320	284	257	236	219	205	194	184	175	168	162	151	143
			LRFD	749	612	529	469	424	389	361	338	320	303	289	277	267	250	235
			G'	42	45	46	46	46	46	46	45	45	44	44	43	43	42	41
		8	ASD	437	358	304	270	240	221	202	190	177	168	159	153	145	135	126
			LRFD	721	590	501	446	397	365	334	314	292	278	262	252	239	222	208
			G'	42	44	44	45	44	44	43	42	41	41	40	39	38	37	36
		12	ASD	420	338	287	251	224	202	186	172	160	150	142	135	128	118	109
			LRFD	694	557	474	414	369	334	306	283	265	248	234	222	212	195	180
			G'	41	42	42	42	41	40	39	38	37	36	35	34	34	32	31
		24	ASD	404	324	270	237	207	188	169	157	144	135	125	119	112	101	93
			LRFD	666	535	446	391	342	310	279	259	237	223	207	197	184	167	153
			G'	40	41	40	40	38	37	35	34	33	32	30	30	28	27	25
	18	6	ASD	646	518	440	387	347	316	291	270	253	239	227	216	207	191	179
			LRFD	1066	855	727	639	572	521	480	446	418	394	374	356	341	316	295
			G'	65	66	65	64	63	61	60	59	57	56	55	54	53	52	51
		8	ASD	629	505	424	373	330	301	274	255	237	224	210	201	190	175	162
			LRFD	1038	833	699	615	545	497	452	421	391	369	347	331	314	288	267
			G'	64	64	63	61	59	58	55	54	52	51	50	49	48	46	44
		12	ASD	613	485	407	354	313	282	257	237	220	206	193	183	173	158	145
			LRFD	1011	800	672	584	517	466	425	391	363	339	319	301	286	261	240
			G'	62	61	59	57	55	53	50	49	47	45	44	42	41	39	38
		24	ASD	596	471	390	339	297	268	241	222	203	190	177	167	157	141	129
			LRFD	983	778	644	560	490	442	397	366	336	314	292	276	259	233	212
			G'	60	59	56	54	50	48	45	43	41	40	37	36	35	32	30
	16	6	ASD	787	630	526	460	411	373	342	317	296	279	264	250	239	220	204
			LRFD	1299	1039	868	760	678	615	565	524	489	460	435	413	394	362	337
			G'	88	86	83	80	77	75	72	70	68	67	65	64	63	60	59
		8	ASD	770	616	509	446	394	358	326	302	280	263	247	235	222	203	188
			LRFD	1271	1017	840	736	651	591	537	498	461	435	408	388	367	335	310
			G'	85	83	79	76	72	70	66	65	62	61	58	57	55	53	51
		12	ASD	754	596	493	427	378	340	309	284	263	245	230	217	206	186	171
			LRFD	1244	984	813	705	623	560	510	469	434	405	380	358	339	307	282
			G'	82	79	74	70	66	63	60	57	55	53	51	49	48	45	43
		24	ASD	737	583	476	413	361	325	292	269	246	230	214	202	189	170	154
			LRFD	1216	962	785	681	596	536	482	443	406	380	353	333	312	280	255
			G'	79	75	70	66	60	57	53	51	48	46	43	42	40	37	35

TABLE 19: RD3N-32 (3-inch Roof) - #12 screw to the Supports - Deck Shear and Stiffness

Maximum Uniform Inward Allowable (ASD) and Factored (LRFD) - PSF																	
Pattern	Gage No.	Sidelap in o.c.		Spans (ft)													
				4	5	6	7	8	9	10	11	12	13	14	15	16	18	20
				ASD & LRFD - Available Diaphragm Shear, plf & G' -Diaphragm stiffness kip/in														
32/5 - #12 Screw at the sidelap	22	6	ASD	590	572	559	549	542	536	531	527	524	521	519	517	515	512	509
			LRFD	951	921	900	884	872	863	855	849	844	839	835	832	829	824	820
			G'	37	43	49	53	58	61	65	68	71	73	75	77	79	83	86
		8	ASD	518	511	478	480	457	460	444	448	435	440	429	433	424	420	417
			LRFD	834	823	770	772	736	741	715	722	701	708	690	697	683	676	671
			G'	36	42	47	52	55	59	61	64	66	69	71	73	74	77	79
		12	ASD	428	400	380	366	354	346	339	333	328	324	320	317	314	310	306
			LRFD	689	643	612	589	571	557	545	536	529	522	516	511	506	499	493
			G'	35	40	44	48	51	54	56	58	60	62	63	64	66	68	69
		24	ASD	316	309	258	262	229	235	212	218	200	207	192	198	186	181	177
			LRFD	509	498	415	421	368	379	341	351	322	333	309	319	299	291	285
			G'	33	37	40	43	44	47	47	49	48	50	50	52	51	52	52
	20	6	ASD	737	717	703	692	684	677	672	668	664	661	658	656	654	650	648
			LRFD	1187	1154	1131	1114	1101	1091	1082	1075	1070	1065	1060	1056	1053	1047	1043
			G'	53	61	68	73	78	83	87	90	93	96	98	100	103	106	109
		8	ASD	649	643	604	607	580	585	566	571	556	561	548	553	543	538	535
			LRFD	1044	1036	973	977	935	942	911	919	895	903	883	891	874	867	861
			G'	52	59	65	70	74	78	81	85	87	89	91	93	94	97	100
		12	ASD	536	503	480	464	451	441	433	426	420	416	411	408	404	399	395
			LRFD	863	810	774	747	726	710	697	686	677	669	662	657	651	643	636
			G'	49	55	60	64	68	70	73	75	77	78	80	81	82	84	86
		24	ASD	397	388	326	333	291	300	270	280	257	266	247	255	240	233	229
			LRFD	638	625	524	536	469	484	435	451	413	428	398	411	386	376	369
			G'	45	51	52	56	56	59	59	61	60	62	61	63	62	62	62
	18	6	ASD	1041	1018	1002	990	980	973	967	962	958	954	951	948	946	942	939
			LRFD	1677	1639	1613	1593	1579	1567	1557	1549	1542	1537	1532	1527	1523	1517	1511
			G'	89	100	108	115	121	126	130	134	137	139	142	144	146	150	152
		8	ASD	922	920	869	875	841	849	823	831	811	819	802	810	795	790	786
			LRFD	1485	1481	1399	1409	1354	1366	1325	1338	1306	1318	1291	1303	1280	1272	1265
			G'	86	96	102	109	112	117	120	124	125	128	129	132	132	135	137
		12	ASD	763	723	694	673	657	645	634	626	619	613	607	603	599	592	587
			LRFD	1229	1163	1118	1084	1058	1038	1021	1008	996	986	978	971	965	953	945
			G'	80	87	93	97	100	102	104	106	108	109	110	111	112	113	114
		24	ASD	559	554	472	482	426	440	399	412	380	393	367	378	356	348	342
			LRFD	900	893	760	776	686	708	642	664	612	632	590	609	573	561	550
			G'	71	78	77	82	79	83	80	83	80	83	80	83	80	80	80
	16	6	ASD	1254	1235	1222	1212	1205	1199	1194	1190	1187	1183	1181	1179	1177	1173	1171
			LRFD	2019	1989	1967	1952	1940	1930	1922	1915	1910	1905	1901	1898	1895	1889	1885
			G'	129	141	150	157	163	168	172	175	178	181	183	185	187	190	192
		8	ASD	1127	1130	1080	1090	1055	1067	1040	1050	1029	1039	1021	1030	1015	1010	1007
			LRFD	1814	1820	1739	1756	1699	1717	1674	1691	1656	1673	1644	1659	1635	1627	1621
			G'	122	134	139	147	149	155	156	160	160	164	164	167	166	168	170
		12	ASD	942	903	876	856	840	828	818	810	803	797	792	787	783	777	772
			LRFD	1517	1455	1411	1378	1353	1334	1317	1304	1293	1283	1275	1268	1261	1251	1243
			G'	112	119	124	127	130	132	133	134	135	136	137	138	138	139	140
		24	ASD	682	690	592	612	544	565	515	535	495	514	480	498	470	461	454
			LRFD	1098	1112	953	985	876	910	829	862	797	827	774	802	756	742	732
			G'	97	104	100	105	100	104	99	103	98	101	97	100	96	96	95

TABLE 20: RD3N-32 (3-inch Roof) - #14 screw to the Supports - Deck Shear and Stiffness

Maximum Uniform Inward Allowable (ASD) and Factored (LRFD) - PSF																	
Pattern	Gage No.	Sidelap in o.c.		Spans (ft)													
				4	5	6	7	8	9	10	11	12	13	14	15	16	18	20
				ASD & LRFD - Available Diaphragm Shear, plf & G' -Diaphragm stiffness kip/in														
32/5 - #12 Screw at the sidelap	22	6	ASD	640	616	599	586	577	569	563	557	553	550	547	543	541	537	534
			LRFD	1030	991	964	944	928	916	906	897	891	885	880	875	872	865	860
			G'	37	43	49	53	58	61	65	68	71	73	75	77	79	83	86
		8	ASD	559	549	510	509	483	486	467	470	456	460	448	452	442	437	433
			LRFD	900	883	821	820	778	782	752	757	734	740	721	727	711	704	697
			G'	36	42	47	52	55	59	61	64	66	69	71	73	74	77	79
		12	ASD	463	429	405	387	374	363	355	348	342	337	333	329	326	320	316
			LRFD	746	690	652	624	602	585	572	561	551	543	536	530	525	516	509
			G'	35	40	44	48	51	54	56	58	60	62	63	64	66	68	69
		24	ASD	343	331	276	277	243	247	223	228	209	215	200	205	193	187	183
			LRFD	553	533	444	446	391	398	358	368	337	347	321	330	310	301	294
			G'	33	37	40	43	44	47	47	49	48	50	50	52	51	52	52
	20	6	ASD	801	774	755	741	730	722	715	709	704	700	697	693	690	686	682
			LRFD	1289	1246	1215	1193	1175	1162	1151	1141	1133	1127	1121	1116	1112	1105	1098
			G'	53	61	68	73	78	83	87	90	93	96	98	100	103	106	109
		8	ASD	701	691	645	645	614	618	596	600	583	588	573	579	567	561	557
			LRFD	1129	1112	1038	1039	989	995	959	967	939	947	923	932	912	903	896
			G'	52	59	65	70	74	78	81	85	87	89	91	93	94	97	100
		12	ASD	580	540	512	491	476	463	453	445	439	433	428	423	420	413	408
			LRFD	933	869	824	791	766	746	730	717	706	697	689	682	676	665	657
			G'	49	55	60	64	68	70	73	75	77	78	80	81	82	84	86
		24	ASD	432	417	347	351	307	315	283	292	267	276	256	264	247	241	236
			LRFD	695	671	559	566	495	508	456	470	431	444	412	425	398	388	379
			G'	45	51	52	56	56	59	59	61	60	62	61	63	62	62	62
	18	6	ASD	1135	1103	1081	1065	1053	1043	1034	1027	1022	1017	1013	1009	1006	1000	997
			LRFD	1828	1777	1741	1715	1695	1679	1665	1654	1645	1637	1631	1625	1620	1611	1604
			G'	89	100	108	115	121	126	130	134	137	139	142	144	146	150	152
		8	ASD	998	990	930	933	893	900	870	878	854	863	843	851	834	828	822
			LRFD	1607	1594	1497	1503	1438	1450	1401	1414	1376	1389	1357	1370	1343	1333	1324
			G'	86	96	102	109	112	117	120	124	125	128	129	132	132	135	137
		12	ASD	825	774	739	713	693	678	666	655	647	639	633	627	622	614	607
			LRFD	1328	1247	1190	1149	1117	1092	1072	1055	1041	1028	1019	1009	1002	988	977
			G'	80	87	93	97	100	102	104	106	108	109	110	111	112	113	114
		24	ASD	610	597	501	512	448	462	416	430	395	409	380	393	368	359	352
			LRFD	982	962	807	824	721	744	670	693	636	658	611	632	593	578	567
			G'	71	78	77	82	79	83	80	83	80	83	80	83	80	80	80
	16	6	ASD	1480	1445	1421	1403	1389	1378	1370	1362	1356	1351	1346	1342	1339	1333	1328
			LRFD	2382	2327	2288	2259	2237	2219	2205	2193	2183	2175	2167	2161	2155	2146	2138
			G'	129	141	150	157	163	168	172	175	178	181	183	185	187	190	192
		8	ASD	1308	1303	1231	1239	1189	1200	1163	1175	1145	1157	1132	1143	1123	1115	1109
			LRFD	2106	2099	1982	1994	1915	1932	1873	1891	1844	1862	1823	1840	1807	1795	1785
			G'	122	134	139	147	149	155	156	160	160	164	164	167	166	168	170
		12	ASD	1083	1023	982	952	929	910	895	883	873	864	856	850	844	834	826
			LRFD	1743	1648	1581	1532	1495	1465	1441	1422	1405	1391	1378	1368	1359	1343	1330
			G'	112	119	124	127	130	132	133	134	135	136	137	138	138	139	140
		24	ASD	793	786	667	681	601	621	562	581	535	553	517	533	502	490	481
			LRFD	1278	1265	1075	1097	968	1000	904	936	862	891	832	858	808	790	774
			G'	97	104	100	105	100	104	99	103	98	101	97	100	96	96	95

CALIFORNIA SUPPLEMENT

EXT LEVEL DECKING, LLC
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STEEL DECK PANELS

CSI Division: 05 00 00 Metals

CSI Section: 05 32 00 Steel Deck
05 31 13 Steel Floor Decking
05 31 23 Steel Roof Decking

1.0 RECOGNITION

Next Level Decking, LLC Steel Deck Panels, described in IAPMO UES ER-0981 and this supplement, were evaluated for use as structural steel deck in roof and floor systems. The structural properties of the steel deck panels were evaluated for compliance with the following codes:

- 2025 California Building Code (CBC)
- 2025 California Residential Code (CRC)

2.0 LIMITATIONS

Use of the Next Level Decking, LLC Steel Deck Panels recognized in this report is subject to the following limitations:

2.1 Next Level Decking Steel Deck Panels shall comply with the provisions applicable to the 2024 IBC or 2024 IRC in IAPMO UES ER-0981.

2.2 Diaphragm deflections shall not exceed the permitted relative deflection of walls between the diaphragm level and the floor below. The flexibility limitations shown in Table 1604A.4 of the California Building Code may be used as a guide in lieu of a rational analysis of the anticipated deflections.

2.3 Special inspections are required in accordance with CBC Sections 1705.2 or 1705A.2 (for projects under the jurisdiction of DSA or HCAI), Steel Construction and CBC Sections 1705.3 or 1705A.3 (for projects under the jurisdiction of DSA or HCAI/OSHPD), Concrete Construction.

2.4 Structural Observations are required in accordance with CBC Section 1704.6 and, for projects under the jurisdiction of DSA or HCAI/OSHPD, Section 1704A.6.

2.5 Concrete requirements shall comply with CBC Section 1909.2, and, for projects under the jurisdiction of DSA or HCAI/OSDPD, Sections 1903A and 1910A as applicable.

2.6 For projects under the jurisdiction of DSA or HCAI/OSHPD, in accordance with CBC Section 2210A.1.1.2, the minimum base steel thickness shall be 0.0359 inches (0.9 mm) except for single-story open structures where the steel deck is not used as a diaphragm and there are no suspended hangers or bracing for non-structural components attached to the deck.

2.7 This supplement expires concurrently with IAPMO UES ER-0981.

For additional information about this evaluation report please visit www.uniform-es.org or email us at info@uniform-es.org

CITY OF LOS ANGELES SUPPLEMENT

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1.0 RECOGNITION

Next Level Decking, LLC Steel Deck Panels, described in IAPMO UES ER-0981 and this supplement, were evaluated for use as structural steel deck in roof and floor systems. The structural properties of the steel deck panels were evaluated for compliance with the following codes:

- 2026 City of Los Angeles Building Code (LABC)
- 2026 City of Los Angeles Residential Code (LARC)

2.0 LIMITATIONS

Use of the Next Level Decking, LLC Steel Deck Panels recognized in this report is subject to the following limitations:

2.1 Design, installation, and inspection of the NL Decking products shall be in accordance with Chapters 16 and 17 of the LABC, as applicable, due to local amendments to these chapters.

2.2 Next Level Decking Steel Deck Panels shall comply with the applicable provisions in the California Supplement to IAPMO UES ER-0981.

2.3 Calculations and details demonstrating that the loads applied to the decks complying with this report shall be submitted to the Department of Building and Safety for approval. In accordance with LABC Section 106.3.3.2, calculations and drawings shall be prepared, stamped, and signed by a California registered design professional, except as otherwise permitted by the Department of Building and Safety.

2.4 All special inspections required for the installation of steel deck panels, including welding inspection, shall be performed by a Registered Deputy Inspector (RDI) as defined in LABC Section 91.1704.

2.5 Decks shall be welded by City of Los Angeles-certified light-gauge welders. Prior to job-site welding, the welders shall demonstrate to the RDI their ability to perform the prescribed welding satisfactorily. A sample of the deck shall be welded to a piece of steel simulating the framing. A satisfactory weld is shown by the tearing of the deck material or by proper weld fusion area being shown as the sample is twisted.

2.6 The plans shall indicate the following: deck panel length, cross-section details, fastener and weld details to the supports, diaphragm boundaries, shear transfer elements, and seams where required. The plans shall also show the design shears.

2.7 Admixtures containing calcium chloride or other corrosive materials shall not be used in the concrete mix for the slab.

2.8 Before concrete placement for the steel deck, the steel deck shall be cleaned of oil, grease, and other materials that may affect the bonding of the concrete to the deck.

2.9 In structures with long-term (sustained) loads, the registered design professional shall account for the effects of concrete creep on long-term deflection in accordance with ACI 318, Section 24.2, or other recognized method.

2.10 This supplement expires concurrently with IAPMO UES ER-0981.