Inspections Division
Date: 04/27/16

Strong-Drive® SDWS **TIMBER** Screw

Ledger Spacing

SIMPSON Strong-Tie®

On-Center Spacing

Loading Condition	Nominal Ledger Size	Screw Model No.	Rim Board Material and Minimum Size	Maximum Deck Joist Span: Up to 6 ft.	Up to 8 ft.	Up to 10 ft.	Up to 12 ft.	Up to 14 ft.	Up to 16 ft.	Up to 18 ft.
				Maximum On-Center Spacing of Fasteners (in.)						
40 psf Live 10 psf Dead	2x	SDWS22400DB	1" OSB 1" LVL	14	10	8	7	6	5	5
			1⅛" OSB 1 5/16" LVL 1¼" LSL	16	12	10	8	7	6	5
			2x SP, DF – 2x SPF, HF	22	16	13	11	9	8	7
60 psf Live 10 psf Dead	2x	SDWS22400DB	1" OSB 1" LVL	10	7	6	5	4	4	—
			1⅛" OSB 1 5/16" LVL 1¼" LSL	12	9	7	6	5	4	4
			2x SP, DF – 2x SPF, HF	15	12	9	8	7	6	5
40 psf Live 10 psf Dead	2-2x	SDWS22500DB	1" OSB 1" LVL	15	12	9	8	7	6	5
			1⅛" OSB 1 5/16" LVL 1¼" LSL	16	12	10	8	7	6	5
			2x SP, DF – 2x SPF, HF	16	12	10	8	7	6	5
60 psf Live 10 psf Dead	2-2x	SDWS22500DB	1" OSB 1" LVL	11	8	7	6	5	4	4
			1⅛" OSB 1 5/16" LVL 1¼" LSL	12	9	7	6	5	4	4
			2x SP, DF – 2x SPF, HF	12	9	7	6	5	4	4

1. SDWS screw spacing values are equivalent to 2009 IRC Table R502.2.2.1. and 2012 IRC Table R507.2. The table above also provides SDWS screw spacing for a wider range of materials commonly used for rimboards, and an alternate loading condition as required by some jurisdictions.
2. Solid-sawn rimboards shall be Spruce-Pine-Fir, Hem-Fir, Douglas Fir-Larch, or Southern Pine species. Ledger shall be Hem-Fir, Douglas Fir-Larch, or Southern Pine species.
3. Fastener spacings are based on the lesser of single fastener ICC-ES AC233 testing of the Strong-Drive® SDWS screw with a safety factor of 5.0 or ICC-ES AC13 ledger assembly testing with a safety factor of 3.0. Spacing includes NDS wet service factor adjustment.
4. Multiple ledger plies shall be fastened together per code independent of the SDWS screws.
5. Screws shall be placed at least 1½" from the top or bottom of the ledger or rimboard, 6" from the end of the ledger with 3" between rows and spaced per the table. End screws shall be located near the bottom of the ledger (see figure). For end distances between 2" and 6", use 50% of the load and 50% of the table spacing between the end screw and the adjacent screw. For end distances between 2" and 4", pre-drill using a 5/32" drill bit.
6. Structural sheathing between the ledger and band shall be a maximum of ½" thick and fastened per code.

Ledger-to-Rim Board Assembly
(Wood-framed lower floor acceptable, concrete wall shown for illustration purposes)

SDWS Screw Spacing Detail