



Installation

General Requirements

Random Length Continuous (RLC) is the most common method of applying Lock-Deck. It allows the use of mixed lengths of material on a variety of span conditions, providing high structural efficiency and attractive appearance.

The allowable RLC roof loads recommended in the span table are based on actual full-scale tests, where the decking was laid in conformance with certain rules. Install as follows for equivalent performance.

1. The deck must be continuous over three or more spans of approximately equal length, with each piece of deck over at least one support. Other situations require special design.
2. Place decking to disperse end-joints as randomly as possible;
 - a. The distance between end-joints in

adjacent rows of decking is at least two feet.

- b. The distance between end-joints in rows of decking separated by only one row is at least one foot.
3. End spans shall be carefully planned and placed. To ensure that end spans perform as indicated by the Span Tables, follow one of these practices:
 - a. Eliminate end-joints in one-third of the decking courses, or
 - b. Provide a cantilevered overhang, free of end-joints, equal to 20% of the end span, or
 - c. Shorten the end span by 10%.

Where one of these practices cannot be applied, end span deflection may exceed the values shown. Construction practice generally accepts the 10% reduction in end spans.

4. Decking should be end-matched and toenailed within one foot of all ends (see Attachment Procedures, this page).

Diaphragm Construction

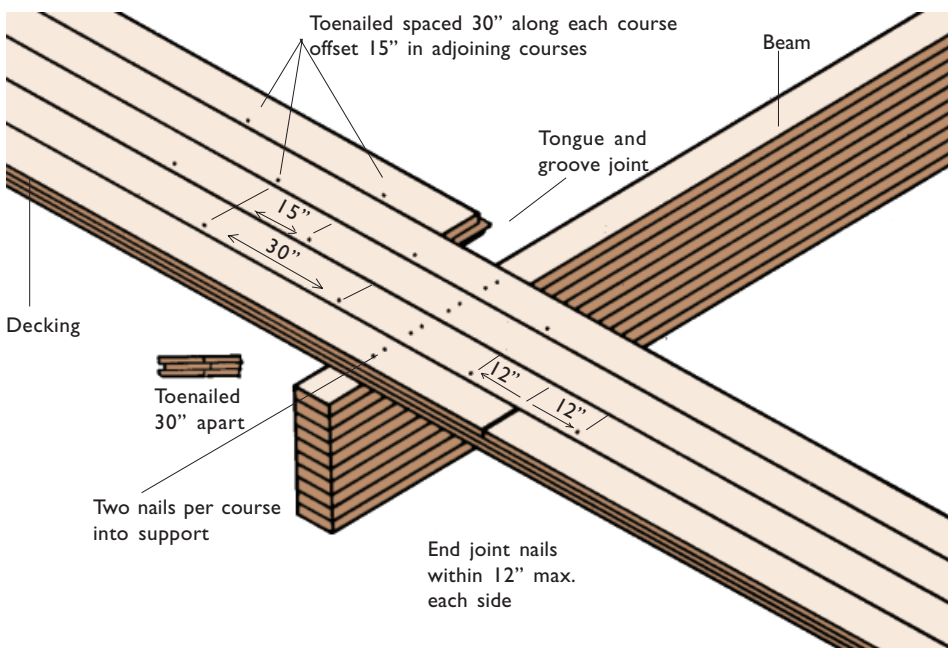
Lock-Deck can be engineered to carry diaphragm shear forces from earthquake and high-wind forces.

The most used method for obtaining diaphragm resistance is to install plywood or OSB over the Lock-Deck. The nailing of panel edges is the same as for panels installed over joists. The Lock-Deck provides the required blocking.

Lock-Deck laminated roof or floor decking in 3", 4", and 5" thicknesses may be designed to resist lateral forces when a 3/8" bead of 3M adhesive No. 5200 is applied on top of the tongue-and-groove joint between adjacent decking courses. Random applied decking may be used and the nailing schedule is the same as regular deck.

Either diaphragm design must have a continuous Chord along all sides to resist the moment forces.

Attachment Procedures



Nailing Schedule

Toenailing along Courses:
 6d@30" o.c. for 2" nominal
 8d@30" o.c. for 3" nominal
 16d@30" o.c. for 4" nominal
 16d@30" o.c. for 5" nominal

Face Nailing to Supports:
 16d for 2" nominal
 20d for 3" nominal
 30d for 4" nominal
 50d for 5" nominal

Screws

Screws can be used as an alternate providing equal shear and withdrawal resistance are provided.