

Roof Sheathing Installation Narrow-width

The overwhelming majority of structural-use panels used in construction today are four feet wide. Yet these panels must often be cut to a width less than four feet to accommodate the size and shape of the roof system. Figure 1 illustrates this situation, where full-width panels are installed beginning at the soffit, continuing up the roof and creating the need to install a narrow-width panel at the ridge. It is not uncommon, especially in specialized industrial construction, for these narrow-width panels to be less than 12 inches in width.

Published roof sheathing span tables included in ER-5637 and NER-133, *Standard for Structural-Use Panels*, recommend a minimum panel width of 24 inches, with specific requirements for support of panel edges using panel clips, lumber blocking, or tongue and-groove edges. These recommendations are similar to the requirements in the building codes. Whenever possible, panels should be laid out so that the minimum panel is 24 inches wide, even if it creates two panels less than full width. It is further recommended, when feasible, to install narrow-width panels at intermediate locations within the roof diaphragm and away from the perimeter (due in part to the heavier construction traffic and diaphragm loads that occur at the perimeter), supported at both edges as recommended in Table 1. However, if panels must be cut to be less than 24 inches in width, the recommendations in Table 1 are suggested to provide sufficient edge support to ensure adequate panel performance. These recommendations apply to panels installed over two or more spans (i.e., three or more supports) with the strength axis of the panel perpendicular to the supports. When panel clips are recommended, one clip should be centered between supports for support spacing 16 inches on center or less; use at least two clips, equally spaced, when support spacing is greater than 16 inches on center. If lumber blocking is recommended, a 2-by-4 or greater (any grade except Utility) may be installed edge- or flat-wise, adequately attached to supporting members.

Table 1.

Support recommendations for narrow-width panels

Panel Width, PW	Support Recommendations
16" < PW < 24"	Panel clips or lumber blocking. If the edge adjacent to a full width panel is supported as recommended, the edge adjacent to a ridge or valley need not be supported, unless specifically required by code.
12" < PW < 16"	Lumber blocking on edge adjacent to full-width panel; support opposite edge if required by code.
PW < 12"	Lumber blocking on both edges, even if one is adjacent to a ridge or valley. Both edges are considered blocked by a single piece of lumber when each edge is no further than 1½" from the lumber edge (e.g., a single nominal 2-by-4 lumber block on edge centered under a 4-1/2-inch-wide panel is considered sufficient for support).

Note: Panel section widths are nominal and may be 1/8" less than that specified to account for saw kerf.

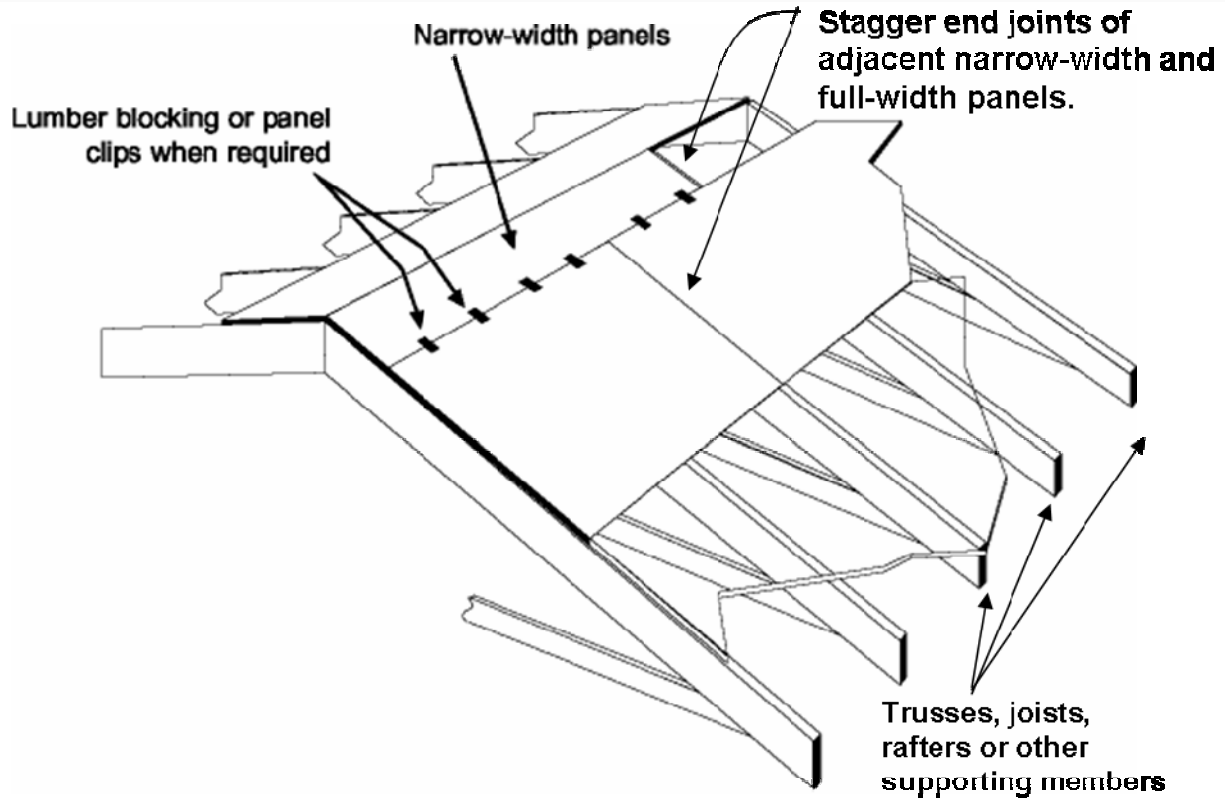


Figure 1.