

Section 2410. Plank Decks

2410.01 DESCRIPTION.

Furnish and install either treated or untreated single or double plank decks according to the contract documents.

2410.02 MATERIALS.

Use materials meeting the requirements of the contract documents.

A. Lumber.

Use treated or untreated lumber as specified. Apply [Section 4163](#) to treated lumber, and [Section 4162](#) to untreated lumber.

B. Hardware.

Apply [Article 4153.07](#).

2410.03 CONSTRUCTION.

A. General.

1. Lay rough planks with no more than 1/4 inch (5 mm) opening between the planks. Do not allow adjacent planks to vary more than 1/4 inch (5 mm) in thickness. Tightly fit surfaced planks together to present a smooth, uniform surface without variation due to difference in thickness or surfacing of the planks.
2. When the design requires wood stringers or nailing strips on steel beams, securely spike each plank to each nailing strip, or joist with no less than two wire spikes. Use spikes 3 inches (75 mm) longer than the nominal thickness of the plank.
3. Securely fasten all shims and scupper blocks to the plank deck. Cut ends of the plank to a true line parallel to the center line of the roadway.
4. Unless alternate hardware is provided, attach the deck to steel stringers or joists by steel clips, or by pins driven through the flange, using a process subject to approval of the Engineer. Ensure clips are securely held between the planks by double pointed nails or by hooks or fins on the clips which engage both adjacent planks. When double pointed nails are used, use 20d for 3 inch planks and 40d for 4 inch planks (5.72 mm diameter by 100 mm long for 75 mm planks and 6.65 mm diameter by 125 mm long for 100 mm planks). Position clips so that they will hold the plank in close contact with the top flanges of beams to prevent the planks from working loose due to relative movement between the planks and flanges.
5. If methods the Contractor uses for driving adjacent planks onto double pointed nails indicate damage to the plank or unsatisfactory joints, the Engineer may require the Contractor to jack the plank into position hydraulically with no less than three jacking points per plank. Sledges and blocks may be used to facilitate jacking.
6. Ensure timber for subfloors for asphalt wearing surface or for double plank decks are given full pressure preservative treatment as specified in [Section 4161](#), unless specified otherwise in the contract documents.

B. Single Plank Decks.

Construct single plank decks to consist of a single layer of wood planks of the size and type specified. When the plank deck is to be covered with asphalt wearing surface, use deck planks surfaced on at least one face and one edge.

C. Double Plank Decks.

Construct double plank decks to consist of two layers of planks supported by stringers or joists. Lay the lower course of planks parallel to bridge abutments. Lay the top course parallel to the roadway center line. Fasten each top course plank to the lower course by spikes placed in pairs at intervals of no more than 4 feet (1.2 m). Use spikes 3 inches (75 mm) longer than the nominal thickness of the plank. At bridge ends, bevel planks in a manner to provide a smooth riding surface.

2410.04 METHOD OF MEASUREMENT.

- A. The Engineer will compute the quantity of Plank Deck Lumber used in plank decks in thousands of board feet (cubic meters) as provided in [Article 2409.04](#).
- B. Nails, clips, and other hardware are incidental to plank deck construction and will not be measured separately for payment.

2410.05 BASIS OF PAYMENT.

- A. Payment for Plank Deck Lumber will be the contract unit price per thousand board feet (cubic meters) for the types and grades of lumber specified in the contract.
- B. Payment is full compensation for:
 - Furnishing all lumber, nails, miscellaneous hardware, and other materials, and
 - Performance of all incidental work necessary to complete the structure according to the contract documents.