

MRTS87

**Supply of Timber Bridge
Materials and Components**

Appendix E (B)

APPENDIX E (B)

WORKED EXAMPLES – TIMBER SELECTION

Deck Planks

- Step 1 From Table 6.5.3-A of MRTS87, Item 12, decking is required to have a stress grade of at least F22, a structural grade of at least No. 2, and a durability rating of at least Class 2.
- Step 2 From Table 6.5.3-B of MRTS87, in the column for structural grade 2, moving down as far as F22 and left from this point, leads to a minimum strength group of S1.
- Step 3 From Table 6.5.3-C of MRTS87, choose any timber which has a strength group of S1, combined with durability rating of Class 2 or better.

Suitable timbers are: Grey Ironbark, Broadleafed Red Ironbark, Grey Gum, Cooktown Ironwood, Carbeen, Hickory Ash.

Alternative Selection – If a higher timber structural grade than the specified minimum (ie No. 1) is selected from Table 4, timber with a lower strength group of S2 may be used.

Girders – Round

- Step 1 From Table 6.5.3-A of MRTS87, Item 9, obtain the minimum stress grade of F27 and the durability class requirement of Class 2. Because these are round timbers, the structural grading does not apply.
- Step 2 From Table 6.5.3-B of MRTS87, in the right hand column for round timber and moving down to the level for F27 gives a strength group requirement of at least S2.

Suitable timbers are: Grey Ironbark, Broad-leafed Red Ironbark, Grey Gum, Cooktown Ironwood, Carbeen, Blackbutt, Black Ironbox, Gympie Messmate, Narrow-leafed Red Ironbark, Spotted Gum, Tallowood, White Mahogany, Hickory Ash.

Note that some of the above species are not included in the list shown in Appendix B which summarises the traditionally accepted timber species for various bridge components. The department has generally adhered to the list shown in Appendix B for timber selection over the past 80 years.

For main structural components such as decking, girders, headstocks and piles, Regions may elect to accept only those proven species shown in Appendix B. In such cases, the order for timber supplies shall be so annotated. However, any timber supplied for bridgeworks shall meet the minimum requirements specified in Tables 6.5.3-A to 6.5.3-C or MRTS87.