

TRANSPORT FOR NSW (TfNSW)
SPECIFICATION D&C 3411
SUPPLY OF GUIDE POSTS (TIMBER)

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REVISION REGISTER

Ed/Rev Number	Clause Number	Description of Revision	Authorised By	Date
Ed 1/Rev 0		First issue	GM, IC W Stalder	04.07.11
Ed 1/Rev 1	Global	References to “Roads and Maritime Services” or “RMS” changed to “Transport for NSW” or “TfNSW” respectively. References to “RMS Representative” changed to “Principal”.	DCS	22.06.20



Transport
for NSW

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IC-DC-3411

VERSION FOR: DATE:

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FOREWORD

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BASE SPECIFICATION

This document is based on Specification TfNSW 3411 Edition 2 Revision 1.

TNSW SPECIFICATION D&C 3411

SUPPLY OF GUIDE POSTS (TIMBER)

1 SCOPE

This specification sets out the requirements for the supply of timber guide posts.

2 STRUCTURE OF THE SPECIFICATION

This Specification includes a series of annexures that detail additional requirements.

2.1 (NOT USED)

2.2 (NOT USED)

2.3 (NOT USED)

2.4 REFERENCED DOCUMENTS

Standards, specifications and test methods are referred to in abbreviated form (e.g. AS 1234). For convenience, the full titles are given in Annexure 3411/M.

3 DEFINITIONS

The term “the Supplier” means the supplier of the product covered by the scope of this Specification.

The following definitions apply to this Specification:

Guide post: Posts used to mark the edge of the road carriageway. They assist the road user by indicating the alignment of the road ahead, especially at horizontal and vertical curves, and under some circumstances, by providing a gauge with which to assess available sight distance.

Delineators: The small retroreflectors (discrete device type) or pieces of retroreflective sheeting (sheeting type) that are attached to guideposts to provide a coherent pattern of delineation of the edges of the carriageway as an aid to night driving.

4 SUPPLIER’S QUALITY MANAGEMENT SYSTEM

The Supplier must establish and maintain a Quality Management System complying with AS/NZS ISO 9001 as a means of ensuring that the product conforms to this Specification.

Provide evidence verifying compliance with this Clause.

5 PRODUCT CERTIFICATION

Provide a certificate of compliance, not more than 3 years old, verifying that the guide posts and delineators conform to the requirements of this Specification. The tests verifying conformity must be carried out not more than 3 years before the supply of the relevant guide posts and delineators.

6 PRODUCT REQUIREMENTS

6.1 COLOUR

The whole of the surface of each guide post above the ground level must be durable gloss or semi-gloss opaque white. The colour must be whiter than Y35 Off White of AS 2700S.

6.2 FINISH

The guide post must be free of sharp edges, burrs, or other defects that may affect its, installation appearance and/or serviceability.

The protective coating applied to the guide post must be free from discontinuities, areas of discolouration, blisters, sagging, runs and other surface defects which may affect the appearance and/or serviceability of the guide post.

6.3 DIMENSION AND SHAPE

The following dimensional requirements must be satisfied:

(a) Width

Guide posts must have a width of 100 mm \pm 5 mm over the entire height of the face displayed towards oncoming traffic.

(b) Thickness

Guide posts must have a thickness of 50 mm \pm 5 mm.

(c) Length

Guide posts must be of such length as to provide a height of 1000 mm above the ground surface and a minimum embedment depth of 500 mm. However, the embedment depth may be varied in accordance with Specification TfNSW D&C R131 Clause 3.3.

Where the guide post timber is not required to be preservative treated (see Clause 6.5), trim the top of the guide post to create a slope such that the 100 mm wide face displayed towards the oncoming traffic is 10 mm higher than the opposite face.

6.4 MATERIALS

6.4.1 General

Structural properties, marking and physical requirements for timber must comply with AS/NZS 1748. All timber must be seasoned.

The surfaces of the guide posts must be smooth sawn and be free from obvious marks or loose splintery material.

6.4.2 Hardwood

Select the species of timber from which the hardwood guide posts are to be cut from those listed in Appendix F of AS 1604 with a durability of Class 1, 2 or 3.

The quality of hardwood timbers must be Structural Grade No 4, or better, (minimum stress grade F8) in accordance with AS 2082.

6.4.3 Softwood

Select the species of timber from which softwood guide posts are to be cut from those listed in Appendix F of AS 1604. Any durability Class is permitted.

The quality of softwood timbers must be Structural Grade No 5, or better, (minimum stress grade F4) in accordance with AS 2858.

6.5 PROTECTIVE TREATMENT

Where preservative treatment of hardwood or softwood timber guide posts is required, carry out the treatment using a vacuum/pressure autoclave process in a State Forests of NSW approved industrial facility. The preservative used must not contain mixtures of compounds of the elements chromium and arsenic.

Comply with the requirements of the Code of Practice for the Safe Handling of Timber Preservatives and Treated Timber, as appropriate, for the supply of preservative treated timber guide posts.

After preservative treatment, the guide post must not be resawn, dressed, planed or have its original dimensions altered in any way.

If the species of hardwood or softwood timber used for a guide post is of a natural durability of Class 1 or 2, as defined in Appendix F of AS 1604, and less than 20% of the cross-sectional area of the guide post comprises sapwood, no preservative treatment is required. If 20%, or greater, of the cross-sectional area is sapwood, then the guide post must be preservative treated in accordance with AS 1604 to hazard class H3. The distribution and retention of preservative in the penetration zone of hardwood and softwood guide posts treated to hazard class H3 must comply with the relevant Clauses of AS 1604.

If the species of hardwood or softwood timber used for a guide post is of a natural durability of Class 3 or 4, as defined in Appendix F of AS 1604, the guide post must be preservative treated in accordance with AS 1604 to hazard class H3. The distribution and retention of preservative in the penetration zone of hardwood and softwood guide posts treated to hazard class H3 must comply with the relevant Clauses of AS 1604.

Paint all timber above ground level with pink wood primer and any holes, cracks, or other surface imperfections in the timber must be stopped with white putty. Follow this work by painting with a lightly tinted (preferably pale grey) all purpose undercoat and then a white alkyd gloss enamel finishing coat. The minimum dry film thickness must be 40 micrometres per coat.

Surface preparation and paint handling and application must be in accordance with the paint manufacturer's recommendations.

All paints must be approved by the Australian Paint Approval Scheme (APAS).

6.6 MARKINGS

To ensure traceability of the guide post, legibly and indelibly mark each post with the following:

- (a) Name of the supplier;
- (b) Month and year of manufacture; and
- (c) Warning – Preservative Treated Timber (if applicable).

The lettering size must be between 5 mm and 10 mm high.

The markings must be placed on at least one side of the guide post and must be 500 mm from the top of the guide post.

Clearly mark guide posts 1000 mm from the top to show the ground level for installation.

6.7 DELINEATORS

Supply guide posts with either two delineators (one red, one white) or with a single delineator (red or white or yellow), as ordered. In case where guide posts with two delineators are ordered, attach the red delineator to the face displayed towards the oncoming traffic.

Delineators must comply with AS/NZS 1906.2.

Centrally locate the delineator between the edges of the guide post, and place it so that the top of the delineator is between 50 mm and 100 mm from the top of the guide post.

Affix the delineators to the guidepost after completion of application of protective coatings. Use hot dipped galvanized fasteners to affix the delineators. Fix the delineators to the guide post so that they are weatherproof and vandal resistant and can be replaced if necessary without damaging the guide post.

ANNEXURES 3411/A TO 3411/L – (NOT USED)

ANNEXURE 3411/M – REFERENCED DOCUMENTS

Refer to Clause 2.4.

TfNSW Specifications

TfNSW D&C R131 Guide Posts

Australian Standards

AS 1604.1	Specification for preservative treatment – Sawn and round timber
AS 1742.2	Manual of uniform traffic control devices – Traffic control devices for general use
AS/NZS 1748	Timber – Mechanically stress-graded for structural purposes
AS/NZS 1906.2	Retroreflective materials and devices for road traffic control purposes – Retroreflective devices (non-pavement application)
AS 2082	Timber – Hardwood – Visually stress-graded for structural purposes
AS 2700S	Colour standards for general purposes
AS 2858	Timber – Softwood – Visually stress-graded for structural purposes
AS/NZS ISO 9001	Quality management systems – Requirements

NSW Government

Work Health and Safety Act 2011

Code of Practice for the Safe Handling of Timber Preservatives and Treated Timber