

# TRANSPORT FOR NSW (TfNSW)

## QA SPECIFICATION R152

### ROADSIDE EMERGENCY TELEPHONE PILLARS

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#### REVISION REGISTER

Ed/Rev Number	Clause Number	Description of Revision	Authorised By	Date
Ed 2/Rev 0		Restructure of the clause numbers and lists to suit the new format.	GM,CEC J Woodward	Feb 95
Ed 2/Rev 1		Specification Number changed from R73 to R152. Converted to MS Word 6.0c. References to RTA Specifications changed.	GM,RNIC; J Woodward	18.02.97
Ed 3/Rev 0	“Notice” Foreword Global  1.3.6 Annex M	RTA PO Box and Fax numbers updated Foreword, including copyright clause, added Text revised to direct imperative style. ”Superintendent” replaced by “Principal”. “shall” replaced by “must”. Reformatting and minor editing. Clauses rearranged and renumbered. References updated Definitions of “you” and “your” added. References updated	GM, IC	26.05.09
Ed 3/Rev 1		Title revised to avoid confusion with spec title of TS107.	GM, CPS	03.07.14
Ed 3/Rev 2	Global	References to “Roads and Maritime Services” or “RMS” changed to “Transport for NSW” or “TfNSW” respectively.	DCS	22.06.20





# ROADSIDE EMERGENCY TELEPHONE PILLARS

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VERSION FOR: DATE:
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## FOREWORD

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### REVISIONS TO PREVIOUS VERSION

This document has been revised from Specification TfNSW R152 Edition 3 Revision 1.

All revisions to the previous version (other than minor editorial and project specific changes) are indicated by a vertical line in the margin as shown here, except when it is a new edition and the text has been extensively rewritten.

### PROJECT SPECIFIC CHANGES

Any project specific changes are indicated in the following manner:

- (a) Text which is additional to the base document and which is included in the Specification is shown in bold italics e.g. ***Additional Text***.
- (b) Text which has been deleted from the base document and which is not included in the Specification is shown struck out e.g. ~~Deleted Text~~.

# **TfNSW QA SPECIFICATION R152**

## **ROADSIDE EMERGENCY TELEPHONE PILLARS**

### **1 GENERAL**

#### **1.1 SCOPE**

This Specification sets out the requirements for the installation of telephone pillars for roadside emergency telephones.

The work does not include the supply of anchor bolt assemblies, telephone pillars, labels, earthing strips and rods which will be supplied by the Principal. Supply all other materials required to complete the work.

The work does not include the installation of telephone cables and handsets and the commissioning of telephone services which will be undertaken by a Telecommunication Service Provider.

#### **1.2 STRUCTURE OF THE SPECIFICATION**

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

##### **1.2.1 Project Specific Requirements**

Project specific details of work are shown in Annexure R152/A.

##### **1.2.2 Measurement and Payment**

The method of measurement and payment must comply with Annexure R152/B.

##### **1.2.3 (Not Used)**

##### **1.2.4 Referenced Documents and Definitions**

Unless specified otherwise, the applicable issue of a referenced document, other than a TfNSW Specification, must be the issue current at the date one week before the closing date for tenders, or where no issue is current at that date, the most recent issue.

Standards, specifications and test methods are referred to in abbreviated form (e.g. AS 2350). For convenience, the full titles are given in Annexure R152/M.

The terms “you” and “your” mean “the Contractor” and “the Contractor’s” respectively.

### **1.3 CONSTRUCTION OF TELEPHONE BAYS**

Construct roadside emergency telephone bays at the locations and to the dimensions shown on the Drawings or as directed by the Principal.

Earthworks, pavement, wearing surface and guardfence must be constructed and paid for in accordance with the relevant parts of the Specification.

## **2 MATERIALS**

### **2.1 CONDUITS**

Conduits and conduit fittings for all cabling must be category “A” white heavy duty rigid UPVC manufactured in accordance with AS 2053 with solvent welded joints. All the conduits must be of the sizes shown on the Drawings.

### **2.2 CABLE PITS**

Cable pits must be “James Hardie” Type JC4 or approved equivalent injection moulded fibre cement with reinforced concrete lids.

### **2.3 TELEPHONE PILLARS**

Telephone pillars, labels, anchor bolt assemblies and earthing strips will be supplied by the Principal.

### **2.4 PLINTHS FOR TELEPHONE PILLARS**

Concrete placed in plinths must be normal class concrete with strength grade N20 in accordance with AS 3600 with 20 mm maximum nominal aggregate size.

If ready-mix concrete is used, the concrete must be mixed and delivered in accordance with AS 1379.

## **3 INSTALLATION**

### **3.1 EARTHING**

Provide earthing to the telephone pillars as shown on the Drawings.

Earth fittings will be supplied by the Principal.

### **3.2 LAYING OF CONDUIT**

Install the conduits only after completion of the earthworks to subgrade level.

Where crossings of pavement are required, they must be at right angles to the pavement centre line.

The grade and level of the conduit must be such that a minimum cover over the conduit of 400 mm, measured from the top of select subgrade level, is provided under road pavements and shoulders; or 300 mm measured from finished level in other areas, whichever is the controlling factor.

A typical conduit crossing arrangement is shown on the Drawings.

Lay the conduit on a straight grade and line and in normal trench conditions on a bed of compacted sand of 50 mm minimum thickness. The width of the trench must not exceed 300 mm. Compact the backfill over the conduit so that the relative compaction, as determined by Test Method TfNSW T166, is not less than 100%.

Provide draw wires in all conduits.



### **3.3 CABLE PITS**

Install cable pits at each end of conduit crossings of pavements, or where shown on the Drawings.

Install cable pits firmly in the ground on a drainage bed layer of minimum thickness 150 mm, and comprising 5 mm nominal size screened aggregate. All conduit connections to cable pits must be made waterproof by bitumastic sealant or other method approved by the Principal.

### **3.4 PLINTHS FOR TELEPHONE PILLARS**

Construct plinths to support the telephone pillars at the locations shown on the Drawings or where directed by the Principal.

The excavation for the footing must be neatly cut from the solid material. Dispose of excavated material at locations approved by the Principal.

Design and construct forms so that they can be removed without damaging the concrete. Build true to line and braced in a substantial and unyielding manner. The material used for forms must be such as to give a smooth and even surface to the concrete. The anchor bolt assembly, 40 mm diameter conduit and earth fittings must be accurately placed and firmly supported.

Deposit the concrete in the forms, without segregation of the components. Concrete must not be dropped freely from a height greater than 1 m or be deposited in large quantities at any point and moved or worked along the forms. Compact the freshly placed concrete by approved vibrator units. Do not permit vibrators to rest on anchorage bolt assemblies.

Strike off exposed surfaces of the concrete and finished with a wooden float. All exposed edges must be neatly rounded to a 5 mm radius.

### **3.5 TELEPHONE PILLARS**

Erect telephone pillars supplied by the Principal on the concrete plinths and the earth fittings installed and connected in accordance with the details shown on the Drawings.

Erect the telephone pillars vertically on the concrete plinths by means of the levelling nuts under the mounting base and then secured tightly in place by means of the nuts on top of the mounting base.

The gap under the mounting base must be completely filled with cement mortar and exposed edges neatly chamfered.

## **ANNEXURE R152/A – PROJECT SPECIFIC REQUIREMENTS**

*Insert any project specific requirements here. If there are none, delete this comment and replace the title with “(NOT USED)”*

## **ANNEXURE R152/B – MEASUREMENT AND PAYMENT**

Payment will be made for all costs associated with completing the work detailed in this Specification in accordance with the following Pay Items.

Where no specific pay items are provided for a particular item of work, the costs associated with that item of work are deemed to be included in the rates and prices generally for the Work Under the Contract.

Unless specified otherwise, a lump sum price for any of these items will not be accepted.

### **Pay Item R152P1 - Supply and Lay ... mm Diameter UPVC Conduit**

The unit of measurement is per lineal metre of conduit installed.

The schedule rate is inclusive of the supply of the conduits and required bends, trenching, laying of conduit in trench or structure, backfilling and the provision of draw wire.

### **Pay Item R152P2 - Cable Pits**

The unit of measurement is per "each" pit installed.

The schedule rate is inclusive of the supply of cable pits, "Hardies" JC4 or approved equivalent, excavation and installation.

### **Pay Item R152P3 - Concrete Plinth and Telephone Pillar**

The unit of measurement is per "each" plinth and pillar installed.

The schedule rate is inclusive of all work and materials required for the construction of the plinth including excavation, concrete, conduits to cable jointing pits and the installation of anchor bolt assembly, earthing assembly and telephone pillar.

## **ANNEXURES R152/C TO R152/L – (NOT USED)**

## **ANNEXURE R152/M – REFERENCED DOCUMENTS**

Refer to Clause 1.2.4.

### **TfNSW Test Methods**

TfNSW T166            Relative Compaction of Road Construction Materials

### **Australian Standards**

AS 1379                Specification and supply of concrete

AS 2053                Conduits and fittings for electrical installations

AS 3600                Concrete structures