

# Memorandum

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**To** Manager Customer Connections, Manager Asset Solutions, Group Manager Resources, Network Compliance Auditors, Option 2 Contractors.

**Copy** Engineering Standards Manager

**Date** 1 August 2007

**Subject** **Network Compliance Bulletin #18** (Installation of Public Lighting Columns)

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There have been a number of recent issues involving incorrect setting depth and leaning Public Lighting poles in URD Estates. This memorandum has been prepared to remind those involved that public lighting columns are to be installed in accordance with the CitiPower / Powercor Standards and the manufacturer's specification.

Constructors need to ensure that the pole holes are augered to the correct size and backfilled as detailed below, this may mean better liaison with Developers and Civil Contractors.

**The common practice of allowing the Civil Contractor to excavate oversized holes (eg. with a backhoe or excavator) and install the poles without compaction of the backfill is to be discouraged and discontinued.**

The pole setting requirements are detailed in the **CP / PAL Technical Standards** - (*FA051 Public Lighting Decorative Lighting, FB001 Pole General Information, FB101 Public Lighting Structure UG Supply .., EB021 Poles Footing Strengths*) and the Decorative Lighting Pole manufacturer's installation requirements where applicable.

## **Ground Setting**

Ground setting column, as the name implies rely on support by having a length of the column installed in the ground. This support may be provided by rammed earth or rammed crush rock around the length of the column in the ground. Whether earth or crushed rock is used depends on the condition of the soil in which the column is installed. Crushed rock is recommended where the soil has poor load bearing qualities either due to its make up or because it can become wet. All ground setting columns are to be installed with concrete at the butt which prevents the column sinking and improves its footing strength.

## **Ground Line Markers**

Ground line markers on all public lighting columns are to be installed at ground level. There is an anomaly with some decorative poles (eg Swiftech/Saferoads) that require the marker to be 100mm above ground level, this situation will be standardised in due course, but in the interim refer to the manufacturer's specification to ensure the poles are set to the correct depth in the ground.

Attached are extracts from the CitiPower/Powercor Technical Standards and a sample of a P/L Pole Manufacturer's (Saferoads) installation requirements.

Effective immediately, Network Compliance Auditors will be instructed to inspect the footing of public lighting poles to ensure correct installation.

Should you have further queries contact Les Ferris ph. 53272404 or Graeme Davenport ph. 53272238

Les Ferris  
Network Compliance Manager – Powercor

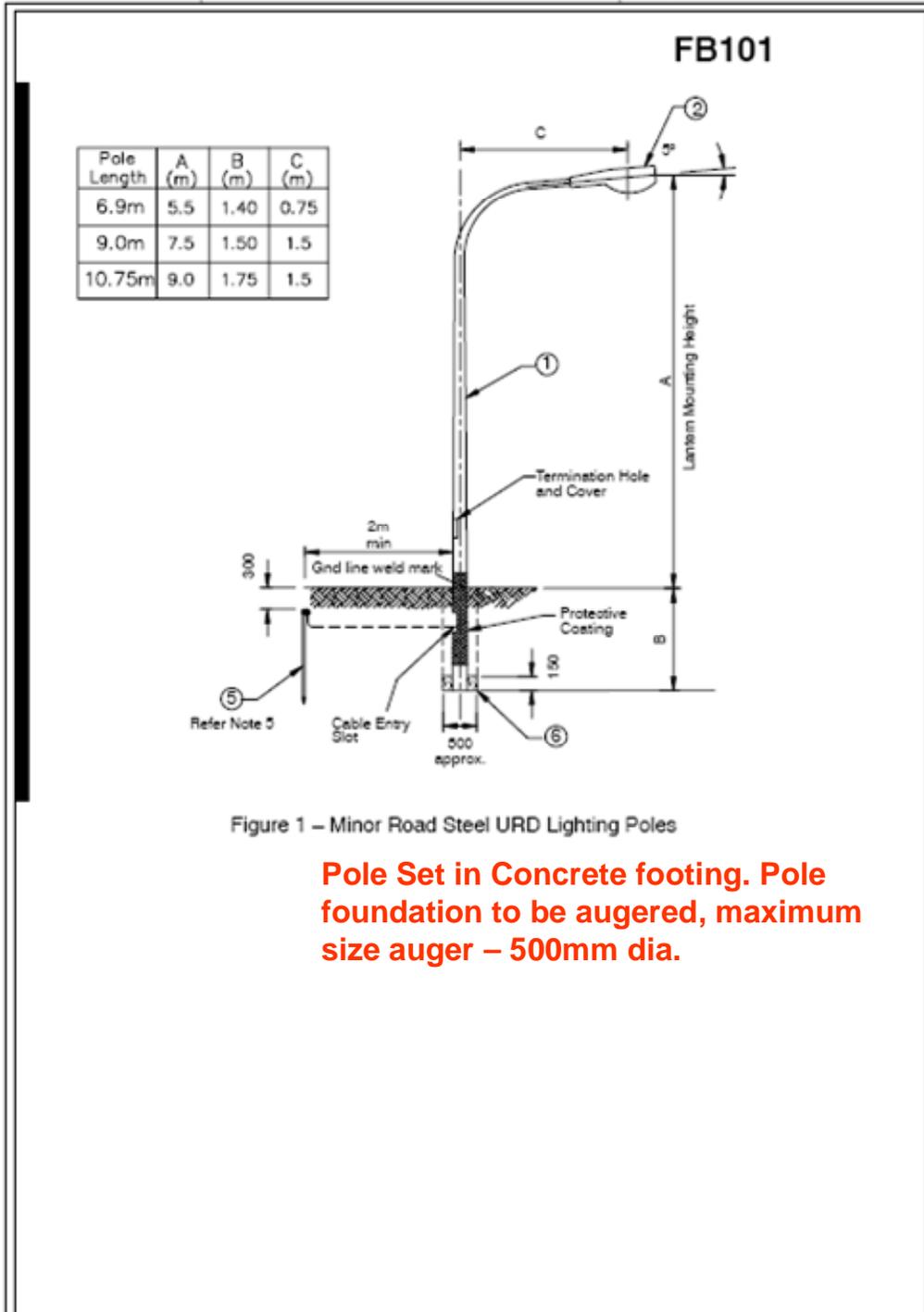


Figure 1 – Minor Road Steel URD Lighting Poles

**Pole Set in Concrete footing. Pole foundation to be augered, maximum size auger – 500mm dia.**

<p><b>Distribution Construction Standard</b></p> <p>Administrator: <i>JED</i></p> <p>Tech. Approval: <i>[Signature]</i></p>	<p><b>Public Lighting Structure, Underground Supply, Category P – Steel Pole</b></p>	<p><b>FB101</b></p> <p>31 May 07 Page 3 of 4</p>	
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FA051

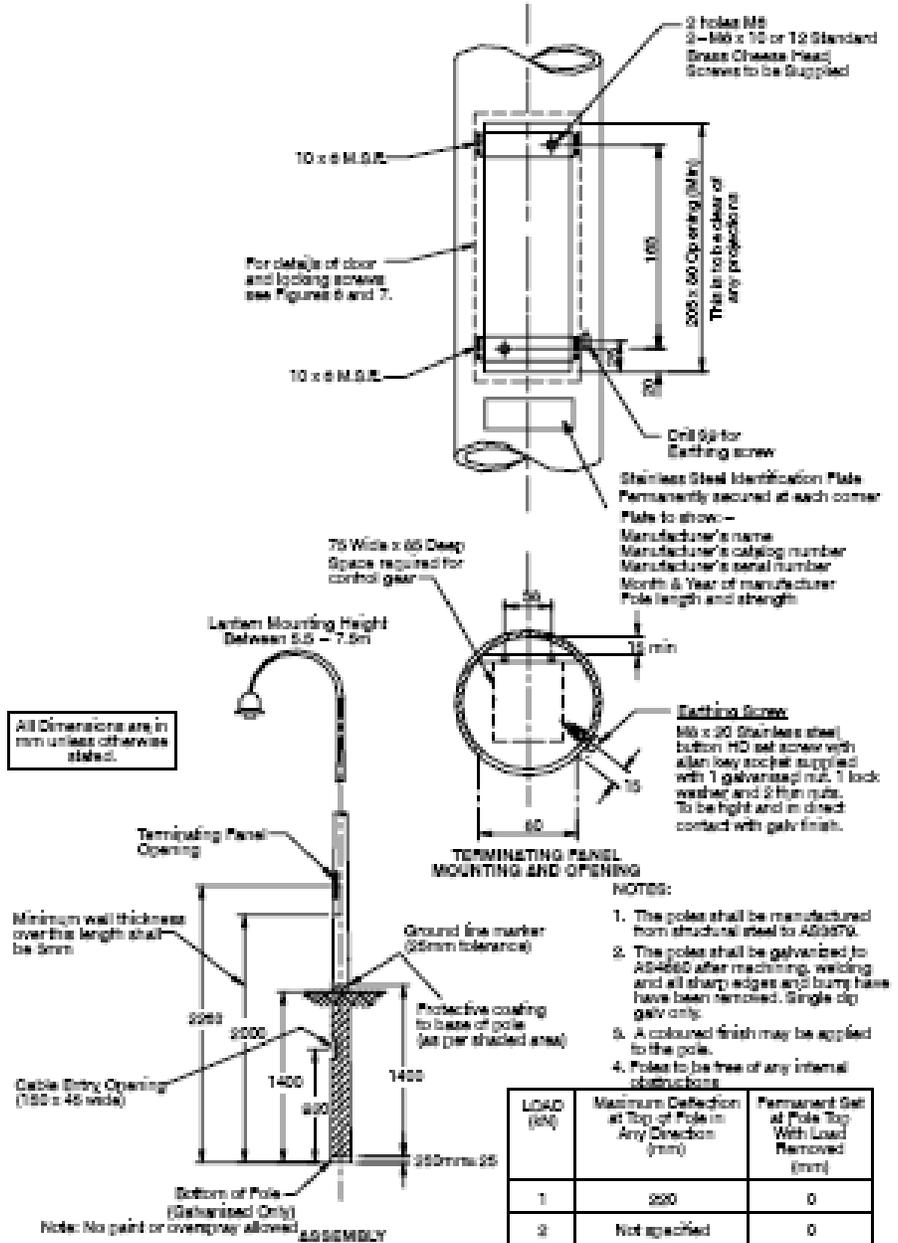


Figure 2 - Pole Requirements for Category 'P' Heritage Public Lighting

<p>Distribution Construction Standard</p> <p>Administrator: <i>[Signature]</i>                  Tech. Approval: <i>[Signature]</i></p>	<p>Public Lighting Decorative Lighting</p>	<p>FA051</p>	
		<p>30 Sep 04 Page 7 of 12</p>	

## Installation instructions for Public Lighting.

**A. Hole excavation**  
 In all cases it is preferable that the hole is bored by suitable machinery. This will provide an excavation with the least possible disturbance to the surrounding ground. The hole should be located at the position illustrated in the construction drawings or as directed by the client. Care should be taken during the excavation process to ensure existing underground assets are not damaged or disturbed. Holes excavated by other means will require individual assessment on site to determine their suitability and possible backfill requirements. This determination should be sought from the civil engineer on site.

**B. Hole diameter & total depth.**  
 The poles are manufactured in such a way that they meet all regulations concerning adequate clearances from ground level to electrical components etc. The installation depth is therefore extremely important and must be adhered to.  
 As a reference, all poles up to and including 5.5m in height are manufactured with a horizontal welded line at 1500mm up from the bottom. All poles in excess of 5.5m and up to 10.0m in height have the line located at 1900mm up from the bottom. This line can be used as final check after all works are complete to ensure the poles are installed at the correct depth. As a consequence of this, the line should be located at 100mm above final ground level for all poles up to and including 10.0m in height.  
 Care should be taken not to over sink the hole as material replaced in the bottom of the hole may be subject to subsidence and therefore causes the pole to sink after time. Care should also be exercised in determining the correct completion level of the ground as extra material is often deposited at pole site after the poles are installed. We suggest that the on site civil engineer may be able to determine this.  
 \* See diagram over page

**\* At all times these products must be installed by a qualified electrician.**

