

UFB Installations in Urban Areas: What Lead-In pipe can an Electrical Contractor use?

With the second phase of the NZ Government's \$2 Billion UFB Roll Out about to extend access of Ultra-fast broadband to an additional 151 towns as well as 43 suburban fringe areas in various larger centers, James Buchanan, Sales Manager for Electrical & Telco Division at Marley NZ provides some key advice for UFB underground Lead-In work.



Background

Chorus carries out the majority of the backbone fibre work that leads to the boundary of a property. From there it is the responsibility of four Local Fibre Companies (LFCs) to deploy the UFB initiative within NZ towns & cities (Northpower, UltraFast Fibre, Enable Networks and Chorus).

With the fibre network backbone complete the focus has come onto getting NZ homes, schools and commercial premises connected to ultrafast broadband. Combined with the current boom in residential construction, Marley has seen a significant increase in the demand for UFB Lead-In pipe around the country.

Frequently Asked Questions,

James says "the most common query from electrical contractors at the moment is whether they can install a green chorus pipe into a roadside to home service trench. And if they can, what Lead-In pipe does Chorus specify."

Chorus branded 20mm Lead-In pipe and sweep bends can be installed by electrical contractors.

"I understand why there may be some confusion around what pipe an electrical contractor can use for data and comms projects" explains James. "Late last year Chorus requested we clarify with our merchant channel that Chorus branded 50mm & 110mm green duct is to be purchased and used only

by Chorus Authorised Service Providers (Broadspectrum, Downers, VisionStream, UCG and Electronet) within the fibre network. This is to ensure there is no confusion if buried pipe needs to be identified in the future. For other non-Chorus data or comms projects, such as installation of CCTV cameras etc, contractors must use non-branded communication duct that Marley now provides ex-stock."

In terms of connecting fibre from the property boundary to a house, the property owner or developer is responsible to engage an electrical contractor to install the underground Lead-In pipe with draw tape, which the LFC will use to haul through the network cable and complete the connection. Chorus branded 20mm Lead-In pipe and swept bends can be installed from the property boundary (network terminal) to the External Termination Point (ETP) on the house. The ETP is where the internal cabling connects to the outside cable.

The following information highlights the Chorus requirements for Lead-In pipe within urban fibre installations. It covers Single Dwelling Units (SDU) and single houses within a Right Of Way (ROW). It does not cover a ROW development or a Multi Dwelling Unit (MDU). Chorus Auditors carry out site inspections to ensure installation of Lead-In pipe complies with their specification and failure to comply may result in refusal to connect to the network, along with cost to rectify the installation.

Note: other LFCs may have different Lead-In pipe requirements.

Underground Lead-In Requirements

An underground Lead-In is required in all property developments and is comprised of a Lead-In pipe (approved conduit/duct), the communication cable, and the ETP.

The below details identify key components of Lead-In pipe installation:

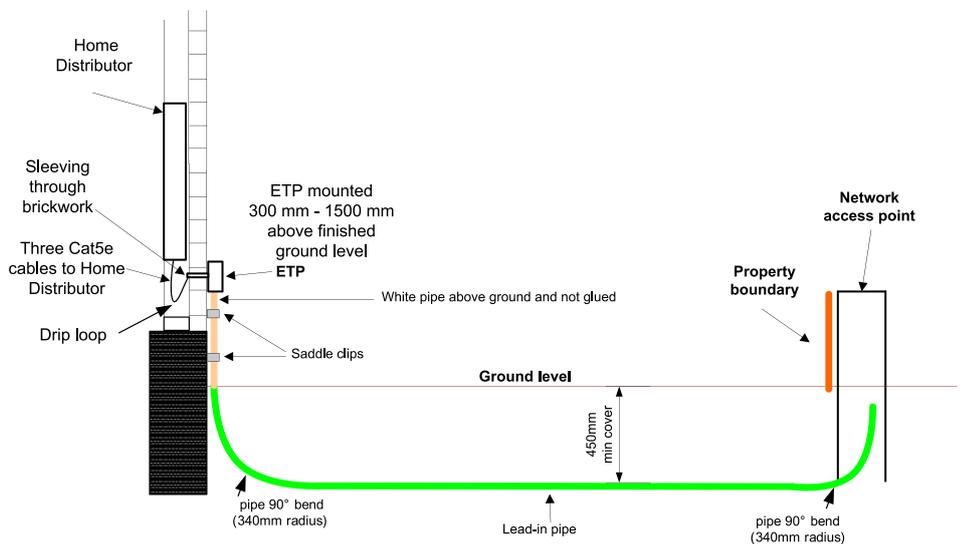


Fig 1. CROSS SECTIONAL VIEW OF A LEAD-IN INSTALLATION

Specified Lead-In pipe and associated pre-form bends

- Use "Chorus" branded pipe, minimum of 20mm size, telecommunication green in colour [see Marley offering below]
- An individual Lead-In pipe is required for each residence [network cable must have its own conduit and not be shared]
- Ensure Lead-In pipe installation is compatible with trench requirements
- Inclusion of a draw tape for chorus to install and terminate the required network cables

For further details regarding installation, trenching, mechanical protection and clearances. Refer Chorus website: "Installing Underground Lead-In Pipes": <https://www.chorus.co.nz/wiring-for-broadband/contractors/installing-underground-telecommunications-lead-ins-for-urban-premises>

Chorus Requirements for Ultra-Fast Broadband installation

The following Marley Products have been approved by Chorus for Ultra-Fast Broadband Underground Lead-In Work.

Marley Lead-In Pipe & Fittings		
Communication Duct - Green (uPVC)		
	Duct	20mm ID Chorus Duct Green 6SJ x 6m long
	Bend	20mm x 90° x 100mm radius x 300mm long
	Bend	20mm x 90° x 530mm radius x 1000mm long
Communication Subduct - Green (Polyethylene)		
	Duct	20mm OD Chorus Service Duct Green x 200m long
Communication Duct - White (uPVC)		
	Duct	20mm ID Chorus Duct White 6SJ x 6m
	Fitting	Chorus Junction Box White
Rigid Conduit - Grey (uPVC)		
	Conduit	20mm OD Conduit Grey x 4m long

Contact details for more information:

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Chorus: 0800 4 NETWORK (0800 463 896) or complete the online form on the Chorus website:
<https://www.chorus.co.nz/contact-us/forms/subdivisions>



CHORUS-APPROVED PRODUCTS

Marley 20mm Service Duct is a labour saving alternative for the underground UFB services. Supplied as a coil, the continuous duct provides key installation advantages over the shorter 6m lengths of duct.

Key Benefits:

- *Quicker install - reducing the need for bends & joins*
- *Minimise waste - cut to length eliminates off cuts*
- *Ideal for trenchless (HDD) applications where jobs are greater than 15m. NB: to avoid the effects of coil memory, use straight lengths of ducting for trench applications (open cut).*

