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Working On D Poles, Including Joint User Poles

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Content approval

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1 ***Introduction***

This document details the procedures to be followed when work is required to be undertaken on D poles.

The content is split into two main parts:

Section 3 - Working on D Poles

Section 4 – Renewal of D Poles

2 ***Scope***

BT “D” Poles:

These are poles which have been tested and found “D” by a designated Openreach Pole Tester. In almost all cases, they will be recorded on the Artisan system and have a red “D” label attached.

DNO owned Joint User D Poles:

These will not be recorded as “D” on Openreach systems, but will be similarly marked with a Red D Label.

Caution: Poles marked “D” must not be climbed!

Note: Whenever the word ‘dropwire’ is mentioned within this document it refers to both copper and fibre.

3 ***Working on BT owned D Poles***

3.1 Important Checks Prior to Work

Prior to starting any work on a D Pole, a full [On-site Risk assessment](#) must be undertaken.

It is also necessary to understand the reason why the Pole has been declared “D” as that will determine the level of work permitted.

Pole status information can be obtained via the Artisan system. Or, alternatively by contacting the Network Assurance Operations Control (Tel 0330 123 3304 – Option 1- 1), quoting the Exchange, DP / Carrier Pole Number and requesting the specific test result for the pole in question.

A typical test result would be D – DEC, which would indicate that the pole has been made D for Decay. The tables below detail the various test results and associated levels of work permitted for each category.

Where the D Pole is a Joint User type and owned by the DNO. The DNO should be approached to check the status and to confirm the level of work permitted.

3.2 Range of work permitted

Once the D test result has been ascertained for the pole in question, use tables 1, 2 & 3 (below) to identify the level of work that is permitted.

The permitted works fall into two main categories.

- A. Test and repair work, removal or replacement of existing Blocks / CBT's / Joint's and the replacement of Dropwires (Copper or Fibre) and Aerial Cables.
- B. Addition of new equipment – Blocks / CBT's/ Joints and Dropwires (Copper or Fibre), but not Aerial Cable.

Important!

Work may only be carried out where the relevant pre-requisite conditions have been met.

See section 3.3 for those conditions.

Note: Poles recorded as D DEC should be treated as Cat A regardless of any notes indicating TNC process.

Pole label	Test result	Description	Permitted works	Renewal policy
D	COR	Corrosion (Hollow Pole)	(A) Test / Repair + Replacement of existing Blocks, CBT's, Joint's, Dropwires & Aerial Cable	Included in Asset Assurance renewal program. NB: These are known as Policy Poles.
D	DEC	Decay		
D	DAM	Damage		
D	DMO	Damage - move		
D	NOR	No repair possible (Damage)		
D	RPD	Recover pole - defective		
D	*COL	Priority 1&2 (PIDOC)		
D	*DOC	Priority 3 (PIDOC)		
<p><i>* Dropwire / Aerial Cable replacement work is excluded from permissions for COL & DOC (PIDOC) Poles. However, other Cat (A) type work is permitted.</i></p> <p>Note: For lamppost style Hollow Poles: wires or cables must not be installed, removed or re-tensioned. For further information see EPT/OHP/C022.</p>				

Table 1

Pole label	Test result	Description	Permitted works	Renewal policy
D	UNS	Unstable	(A) Test / Repair + Replacement of existing Blocks, CBT's, Joint's, Dropwires & Aerial Cable	Non AAP Policy Poles. Driving program to fund pole renewal (if required).

Table 2

Pole label	Test result	Description	Permitted works	Renewal policy
D	UTT	Unable to Test	(A) Test / Repair + Replacement of existing Blocks, CBT's, Joint's, Dropwires & Aerial Cable	Non AAP Policy Poles. Driving program to fund pole renewal (if required).
D	UNR	Pole damaged – Repair possible		
D	DEP	Depth		
SD	SD	Shallow depth		
D	TNC	Tested not climbed	(B) Provision of	

			new / additional equipment inc Blocks, CBT's and Dropwires, but not Aerial Cable	
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Table 3

3.3 Mandatory conditions for Permitted Works

See relevant conditions for Cat A & B work below.

Note: **Note:** In all cases, access to the Pole is by MEWP or Scaffold only!

3.3.1 Cat A - Test, Repair & Replacement work

In cases where the D test result indicates that Test, Repair and Dropwire / Aerial cable replacement work is possible, the work may be undertaken, subject to the following conditions:

- Site specific risk assessment has not identified any circumstances, which may make work unsafe
- For work involving replacement of a Dropwire or Aerial Cable - A Visual, Hammer and Probe test does not indicate that Pole has become in danger of collapse. Also, a pre-work label is attached to the pole
- The pole is only accessed by MEWP or Scaffold. Under no circumstances should a ladder be placed against it
- Caution is taken to ensure that the pole is not hit or jarred by the MEWP
- No removal of wires that appear to be providing critical support to the Pole (without Temp stay being provided)
- **Important** - Any Aerial cable being recovered as part of replacement work, is de-tensioned slowly, not bolt cropped!
- Renewal of Aerial Cable is like for like only (by Pair count)
- Any Aerial cable which is replaced, is recovered immediately, not left in place (No significant permanent change of loading introduced)
- Red A558 label shows the last inspection to be within the last 36 months
- The Aerial cable requiring renewal is not 50/0.9, 60/0.9, 100/0.6 & 104/0.9
- Aerial cables which have been brought down by trees are excluded from this procedure

Note: A Flowchart explaining the decision path for Cat "A" works is shown in Appendix 1.

3.3.2 Cat B - Provision of additional equipment (inc Dropwires)

Where the D test result indicates that it is possible to add equipment. Then in addition to Cat A work, new equipment – Blocks, CBT's and Dropwires (but not Aerial cables), may also be added, subject to the following conditions:

- Site specific risk assessment has not identified any damage or other circumstances, which may make work unsafe
- The pole is subject to a successful on the day standard hammer test (no decay identified)
- A Pre-Work check label is completed and attached to the pole
- The pole is only accessed by MEWP or Scaffold. Under no circumstances should a ladder be placed against it
- Caution is taken to ensure that the pole is not hit or jarred by the MEWP
- No removal of wires that appear to be providing critical support to the Pole
- Where, using an angle finder app, the pole is shown to be leaning by more than 10°, no additional wires are to be added.
- With any new wires added, the total number of wires on the pole does not exceed those shown in the tables below

3.4 Maximum wire loadings

3.4.1 Radially distributed poles

The total wire count (existing + added wires) must not **exceed** 75% of the normal maximum load of the pole - See Table below.

Pole Category	Light Poles		Medium Poles		Stout Poles	
	Original max loading	75% of max loading	Original max loading	75% of max loading	Original max loading	75% of max loading
1- urban terraced	40	30	40	30	50	37
2- urban semi-detached	28	21	40	30	50	37
3 – semi rural	24	18	40	30	50	37

4 - rural	20	15	30	22	40	30
5 – exposed rural	12	9	20	15	30	22

Table 4

3.4.2 Non-Radial (One side loaded) Poles

Non-radial poles are defined as those where all wires are attached in a single 180° Arc, with zero wires in the opposing arc. The overall standard wire loading limits are shown below and should not be exceeded.

Pole Class	Light	Medium	Stout
Max wires	7	15	30

Table 5

3.4.3 Emergency Work (Radial & Non Radial)

The introduction of additional loadings beyond the limits shown in Tables 4 & 5 are not permitted. The only exception being Emergency Work, which is defined as work for hospitals, ambulance, police, fire or similar circuits.

Commercial necessity is not a valid reason for carrying out work classified as an emergency.

3.5 Working on DNO owned “D” and “S” Joint User poles

DNO D Pole – The pole may only be accessed using a MEWP and permitted works shall not exceed those described as Category A in section 3.2 above. Follow the conditions shown in *3.3.1 above.

Where it is required to provide new equipment (Category B work), you must first contact the DNO and seek their authorisation. Under no circumstances should additional plant be added without such authorisation. Follow the conditions shown in *3.3.2 above.

DNO “S” Pole - Some (but not all) DNO’s use “S” to indicate “suspect”. For these Poles, check with the DNO and confirm that access is allowed. If yes, ascertain the level of work permitted and follow the relevant conditions laid down in *3.3.

*Excludes the requirement to fit a Pre-Climb check label.

Important!

- Only where the test shows the pole to be OK may it be accessed using a Ladder insulated 7A (Blue ladder).
- Regardless of the method of access, all DNO Poles require two persons working

3.5.1 Current Joint Use D Pole in Imminent Danger of Collapse

If following a hammer test, it is genuinely suspected that a DNO Pole is in imminent danger of collapse.

- Do not attempt to access it (Even by MEWP)
- Contact and advise the local DNO

Contacting the local DNO:

From a Mobile phone – Dial 105.

Web: <https://www.energynetworks.org/operating-the-networks/whos-my-network-operator>

3.5.2 Ex Joint User Pole with only BT Plant, in Imminent Danger of Collapse

Where the pole is an Ex-joint user pole with only BT plant present, and is in imminent danger of collapse, the current Priority D Pole Process for BT poles must be followed. Works teams (DL or Contract) should carry out any work to replace or recover the D pole in the manner described within section 4 of this document.

4 D Pole Renewal Work (BT 'D' Pole)

4.1 General principles

- Work must be undertaken in accordance with the rules laid out in this document.
- Anyone involved must be suitably trained to carry out the task.
- An [on-site risk assessment](#) must be completed prior to commencement of work.

Work to renew a D pole can be split into 4 parts:

- Removing the existing wires and cables from the D pole.
- Recovery of the D pole.
- Provision of the new pole.

- Reconnecting the wires & cables to the new pole.

4.2 Removing Existing Wires & Cables

The first determining factor on how the work should proceed will depend on whether the new pole is to be planted in the same hole, or if it is to be planted alongside the existing D pole.

4.2.1 Pole to be planted in Same Hole (Dropwires only)

All of the wires will need to be disconnected from the D pole and laid out in a safe and suitable manner. Before starting work, consideration must be given to how the loading of the pole will change during the duration of this work. When the pole is radially loaded, the wires should be disconnected in a way that gradually reduces the number, without leaving an excessive load in one direction – see attached Fig 1 and suggested sequence.

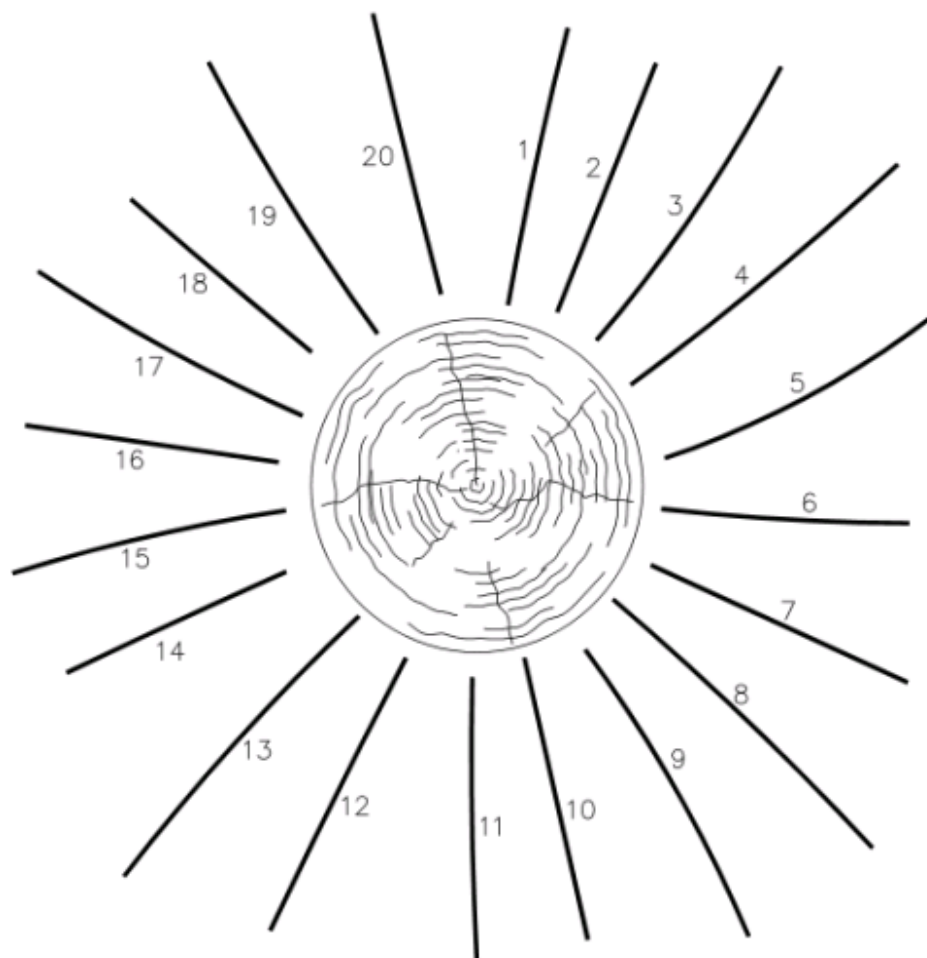


Fig 1

A suggested de-tensioning sequence for a pole with 20 wires would be:

1, 11, 15, 5, 9, 18, 3, 12, 10, 19, 13, 4, 7, 16, 20, 14, 6, 17, 2, 8

A similar principle should be used for other quantities

If the pole has the majority of wires within a 180° arc or similar side loading, then refer to Fig 2.

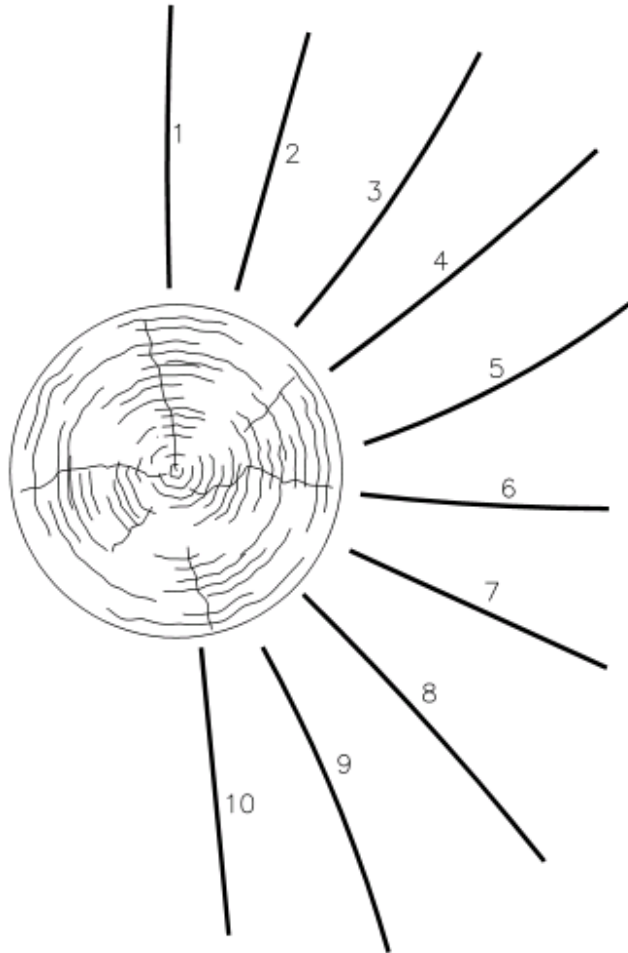


Fig 2

A suggested de-tensioning sequence for a pole with 10 wires (single side loading) would be:

2, 9, 5, 7, 3, 8, 4, 6, 1, 10 again with a similar principle for other quantities.

The appropriate method for laying out the wires should be determined on-site. This may involve coiling the wires and leaving in the gardens, or temporarily attaching to the Dropwire fixing point on the house. **However this is achieved, the working party must ensure that the wires are safe for the duration of the works.** Any wires that need to be changed, either because they are obsolete or faulty, or will not reach to the new pole position or for any other reason should be completely recovered.

Note: Dropwires must not be disconnected from the house or building end, must not be left laid in the carriageway and must be coiled up to avoid causing a trip hazard.

4.2.2 Pole to be planted in Same Hole or Alongside Existing Pole (with Aerial Cables)

The procedure for de-loading / re-loading / transferring Dropwires is as described above.

Where an Aerial Cable spans to the next pole on route, which is also D, the following two options apply.

1. Renew that pole too
2. Alternatively, the Pole may remain in-situ, providing that before work begins it is subject to an assessment, to gauge whether it is sufficiently stable to withstand the temporary change in loading caused by lowering of the Aerial Cable from the pole being renewed.

For option 2, the following mandatory conditions apply:

- A Site Specific Risk Assessment does not identify any damage or other circumstances, which may make work unsafe
- A standard Hammer test of the Pole does not indicate that it is seriously decayed, or in a Pole In Danger Of Collapse (PIDOC)

Additionally, if the Pole needs to be accessed:

- A Pre-Climb / Work check is completed and label attached to the pole
- Access is made by MEWP or Scaffold only
- Caution is taken to ensure that the pole is not hit or jarred by the MEWP
- No lowering of the Aerial Cable if it appears to be providing critical support to the Pole
- Aerial cable is de-tensioned slowly, not bolt cropped
- If renewal of the Aerial Cable is required, this is done on a like for like basis only (i.e. Lightweight for Lightweight)
- Any Aerial cable replaced, is recovered immediately, not left in place (No significant permanent change of loading introduced)

Where these conditions cannot be met, then temporary staying of the adjacent pole must be considered, in order to support it whilst work to renew the first pole is being carried out.

Detail on providing temporary support for the pole can be found in ISIS EPT/OHP/B038. The level of temporary support should be commensurate with the loading. For example, A Lightweight cable on a D pole, which only needs to be supported for the short duration whilst the cable is lowered / re-attached to the new pole, may only require the use of 1 or 2 Crowbars.

4.3 Transfer of wires & equipment from DNO owned Joint User Poles

The DNOs use a similar pole test process and D criteria to BT. Therefore the procedures for working on BT D poles (shown elsewhere in this document) can also be applied to Joint User Poles.

4.4 Relevant ISIS Documentation

Standard pole recovery & provision procedures are detailed in the following ISIS documents:

- EPT/OHP/B011 - Drop wiring
- EPT/OHP/B012 - Aerial Cabling
- EPT/OHP/B034 - Mechanised Poling
- EPT/OHP/B036 - Pole Fittings & Furniture
- EPT/OHP/B037 - Manual Pole Provision
- EPT/OHP/B038 - Manual Pole Recovery

5 Appendices

5.1 Appendix 1 – Flowchart for Cat A work

The Flowchart below explains the decision path where test result data indicates a Pole is suitable for Cat A Work.

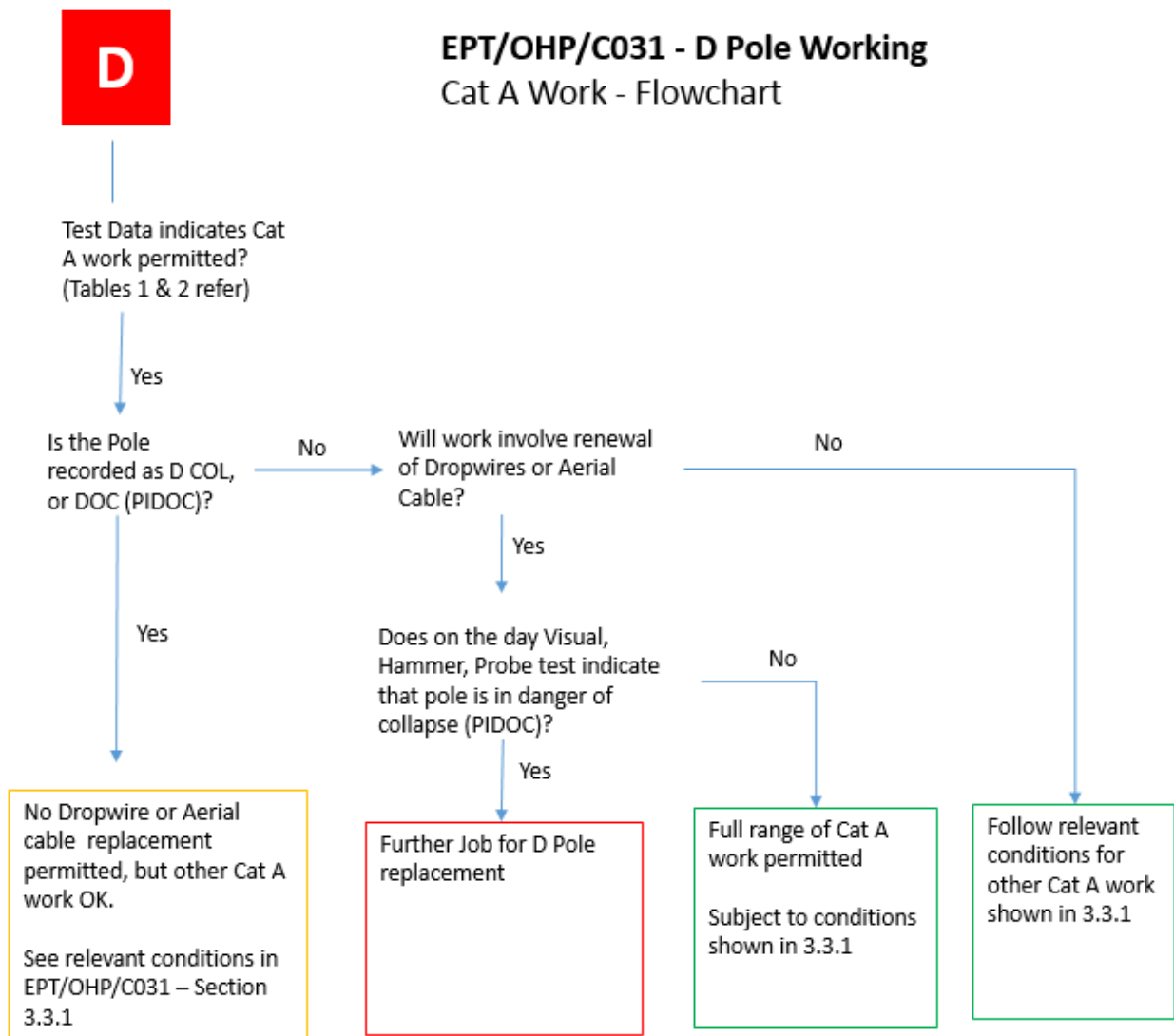


Figure 3 – Cat A work flowchart

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