Specification CP8 - Overhead

Attachment of Communication Providers Overhead Cables & Equipment on Openreach Poles

The purpose of this specification is to provide CPs with details of the Engineering Principles that apply where they want to use Openreach's poles pursuant to and in accordance with the terms of Openreach Physical infrastructure Access (PIA) product. This specification contains in particular details of the Engineering Principles on acceptable pole loadings, pole fixings and relevant cable clearances where CPs attach cables using PIA to Openreach poles. This document also provides requirements regarding safe access to poles. Nothing in this document removes obligations on the CP to comply with any and all health, safety and other laws and regulations and to comply with Good Industry Practice.

Please note that in line with the current Terms & Conditions of the PIA product, the attachment of Powered or Active equipment to Poles is not permitted.

1. General Notes

1.1 The first letter of a specification carries a number without a suffix letter. When a specification is re-issued a suffix letter is added and for each subsequent issue the suffix letter is advanced.

1.2 Except when a specification is completely re-written, an amended clause is indicated by a star adjacent to the clause number and the particular portion amended is indicated by a vertical line in the margin.

1.3 When a supplementary specification is quoted by number only the latest issue of that specification shall be followed, but if in addition to the number, a particular issue is quoted, that issue of the specification shall be followed.

1.4 If any further information in connection with this specification is required then you must submit a full written application to the Specifying Authority (SA) found in Section 23 setting out the information required and the reasons.

1.5 In this document where we use words "shall" and "must" then these are obligations which a CP has to satisfy when using PIA. If we use the word "should" then a CP must use all reasonable endeavours to satisfy the requirement but may deviate subject to the other requirements set out

2. General Cable Specifications

2.1 Cable requirements

All Drop Wires, used to connect to customer premises, must meet the following specifications and are subject to the requirements set out in paragraph 2.2 below:-

Requirement	Performance specification
Breaking load, or ultimate fail load	Max 2000N
Maximum Outer Diameter	Drop Wires must not exceed 7mm Ø
Cable Insulation	The cable must be suitable for use under 11kV Power Lines (with a minimum vertical separation distance of 1.8 Metres)
Resistance to wind /ice	Cable must be able to withstand 97 kph wind, no ice. 80 kph wind + 5mm ice. 0 kph wind, + 10mm ice. without appreciable sag
Sag due to temperature variation	Cable must be specified to operate in a temperature range of -15°C to +30°C

Table 1 – Cable requirements

2.2 Verification of CP's Cables

The CP must ensure that it submits any cable type it intends to use and/or connect to a pole to Openreach for written approval. Openreach will review and physically test all CP cables it receives from CPs, to confirm their mechanical properties. In summary, this will involve:

- An initial review of the Cable Datasheet and other valid documents (Test reports etc) by the Openreach SA
- Physical Testing of cable samples at the Openreach Network Evaluation Centre (Martlesham)

Full details of the verification process which must be adhered to by the CP are provided at Appendix 1 of this specification.

All Overhead cables will fall into two categories:

Dropwires – These are cables with a maximum outer diameter of 7mm and /or, with an ultimate tensile load (breaking load) of 2kN or less. Dropwires may be deployed by the CP "unplanned".

Aerial Cables – Are those which exceed the 7mm / 2kN limits. Aerial Cables will be subject to specific approval and bespoke Openreach surveys prior to each and every deployment. See section 2.3.

2.3 Non Standard cables

Any cable which does not meet the requirements of 2.1 above, will be subject to our prior written approval following application to the SA, and a chargeable bespoke site survey, to determine if the pole is capable of supporting such a load. The survey will also help to determine what additional works may be required to either strengthen the pole, or modify the route.

3. Overhead Cable attachments to Wooden Poles

Openreach Poles fall into two general categories:
Distribution Poles (DP's) – These may be fed by underground or overhead cables and support feeds to individual properties
Carrier Poles (CP's). These Poles (also referred to as Feeders) are typically used to carry Dropwires from a DP to Customer properties.
Openreach Distribution Point (DP) poles, and the majority of Carrier poles, are fitted with a steel ring (known as a Ring Head), 200mm from the tip of the pole.

3.1 Pole Top attachment

On Radial Distribution type poles, Dropwires must be attached to a Ring Head (where one is fitted) using a pre-formed spiral or wedge type clamp. NB: Clamps must not occupy a disproportionate amount of space on the ring, thereby preventing other attachments.

Where a Ring Head does not exist, the CP may install their own Ring Head but only where the equipment has been agreed in writing by the Openreach SA in advance of any deployment. Alternatively, the CP may request Openreach to fit one, by submitting an order for Ancillary Services, which would be chargeable.

Alternatively, on designated pole routes, Dropwires may be attached in vertical formation on one, or both sides of the Pole using a bracket and clamp. The first Dropwire attachment must be a minimum of 200mm from the Pole Top. Subsequent Dropwires must be provided with a 300mm vertical spacing. Where 300mm spacing cannot be achieved, the absolute minimum is 150mm. See attachment examples (Figure 1) below.

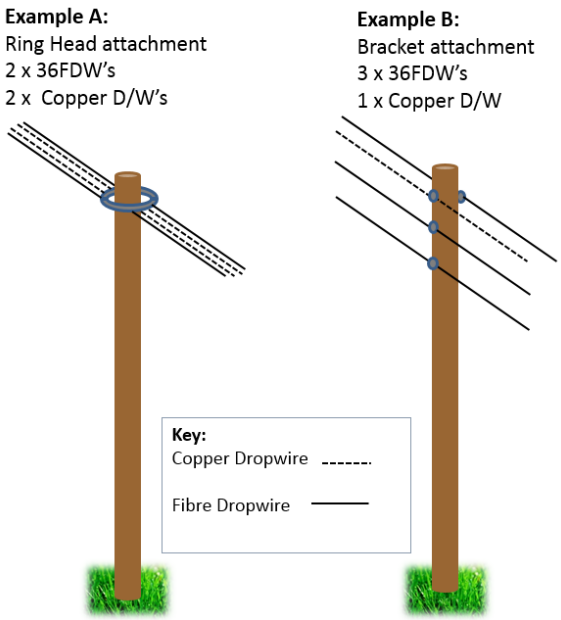

Figure 1 – Cable attachment examples

3.2 Pole Top attachment (Non-Standard Cables)

Those cables which do not meet the requirements of 2.1 above must (as set out at 2.3) be subject to specific and prior written approval of Openreach SA. Part of the approval process will be acceptance of the fixing method. The method for fixing round cable types, is by spiral pre-formed clamps. The method for Figure of 8 cable types is to use sliding wedge type clamps, where the clamp fixes to the suspension member within the Figure of 8. Openreach use the Telenco * range of clamps, and provided the correct size is used, and it is fitted accordance with Telenco's fitting instructions, then these will be considered suitable.

Aerial Cables with a breaking load of up to 6.5kN can be fitted to an existing Ring Head. Cables with a breaking load beyond this figure must be fitted to a separate attachment point – either the Telenco Universal Pole Bracket (UPB) fitted in accordance with their instructions, or by using a 16mm eyebolt, through-bolted to the pole.

3.3 Fixings at Customer premises

Fixings at customer's premises are solely the responsibility of the CP, but it is recommended that fixing points should be eyebolts or other closed ring methods, with a fixing strength of min 4.5kN.

3.4 Vertical Cable runs on wooden Poles

Any cables which run vertically on the pole must be fixed at a minimum of 450mm intervals and must not impede access to the climbing steps.

Standard cable cleats tend to get lifted off the pole by safety belts & ladders rubbing against them, which can lead to insecure/loose cables. Therefore the CP must fix cables using a 16mm aluminium strip (typically available in three length options 80mm, 120mm and 180mm). See Figure 2 below.

Figure 2 – Aluminium Strip

The CP must secure the strip using 38mm long galvanised bonding nails, along with galvanised steel flat washers (typically with a 6.5mm diameter centre hole).

Protection of cables are solely the responsibility of the CP but it is recommended to cover cables up to 2.3m minimum from the ground line, by fitting suitable capping.

Where a CP's cable shares the same duct space or run together with Openreach cable, the capping requirement is mandatory. If the existing capping is not large enough to accommodate the extra CP cable, the CP may replace the capping with a larger, Openreach approved capping. Any cables running between the upper and lower envelopes of spaces shown in Figure 3 (i.e. through the climbing area) must be suitably managed and in a manner agreed in writing, in advance with the Openreach SA. This is to avoid risk to climbers.

3.5 Fibre warning labels

The CP shall provide a label **– "CAUTION OVERHEAD FIBRE"** on each pole where their fibre cables are deployed. In all cases, the label must be securely fixed to the pole at head height. The label shall be plastic, with black font on yellow background and be firmly fixed to the pole. NB: Care must be taken not to lean ladders etc. against fibre cables. Labels are available from: Colourplan Print, 14-20 Wharfedale Road, Ipswich, Suffolk, IP1, 4JP – Tel 01473 400 379

4. Overhead Cable attachments to Hollow Poles

Hollow Poles may not be climbed. In general, all operations on them are performed from ground level.

These Poles are fitted with an internal ring and this is the preferred attachment point for Drop Cables.

Exceptionally, CPs may attach Dropwires externally, at the top of the hollow pole but this must be done using a Telenco Universal Pole Bracket (UPB) and secured using Telenco Stainless Steel Banding. Please note because of its load bearing nature, the UPB and Banding must be installed correctly, using an approved Telenco Tool.

Current Hollow Poles are of Galvanised Steel construction and may be of Light or Medium Class, whereas previous versions of Hollows (Stainless Steel and Glass reinforced Plastic) were only produced in Light Class.

The size and class of the pole is usually cold stamped onto the ring during manufacture. i.e. BT – 9 L – GS – 04 indicates a 9 Metre Light, Galvanised Steel Pole manufactured in 2004. NB: In some cases this information may be found on a tag which is attached to the ring.

Dropwire loadings on Galvanised Hollow Poles are the same as for their Wooden Pole equivalents (Tables 2 and 3 refer).

The conditions shown in section 3.2, 3.3 and 3.5 also apply to Hollow Poles

5. Fixing of apparatus to Wooden Poles

Connection Boxes, Cable Joints, Fibre-locking devices may be fitted to wooden poles subject to the following:

- Items must be securely attached to the pole using appropriate materials
- New apparatus, shall only be installed on the pole in the areas shown in Figure 3 below. NB Existing equipment installed prior to April 2020, which does not meet the requirements shown in Figure 3, may remain in situ, providing that in BT's reasonable opinion, it does not prevent a handhold of the Bass Steps (see 50mm rule in fig 3)
- Customer connectivity apparatus e.g. CBT's shall only be provided in the Upper Space Envelope
- Where the Lower envelope is being used (for Joints etc), a vertical clearance of 450mm must be provided between the Lowermost Climbing Step and the uppermost part of the equipment (Figure 3 refers)
- Where the CP feels they are unable to comply with the envelope of space requirements, they may submit an Order for a Network Adjustment to Openreach who will review and verify the validity of the Network Adjustment and if accepted decide on an appropriate solution to create the necessary space
- Before seeking a network adjustment for no space on the Pole, the CP must have used best endeavours to use all available space, including the provision / use of Back to Back space saver brackets. Examples of a Back to Back brackets are shown at Figure 4 below and further information on these can be obtained from the (SA).

  NB: The sharp top edge of the Bracket must incorporate a UV Stable protector, to prevent possible shearing of the Climbers Safety Lanyard.
- Where a Pole has a Crown Type Ring fitted, new Blocks / CBT's etc must be located above the Ring. See Figure 5 below.

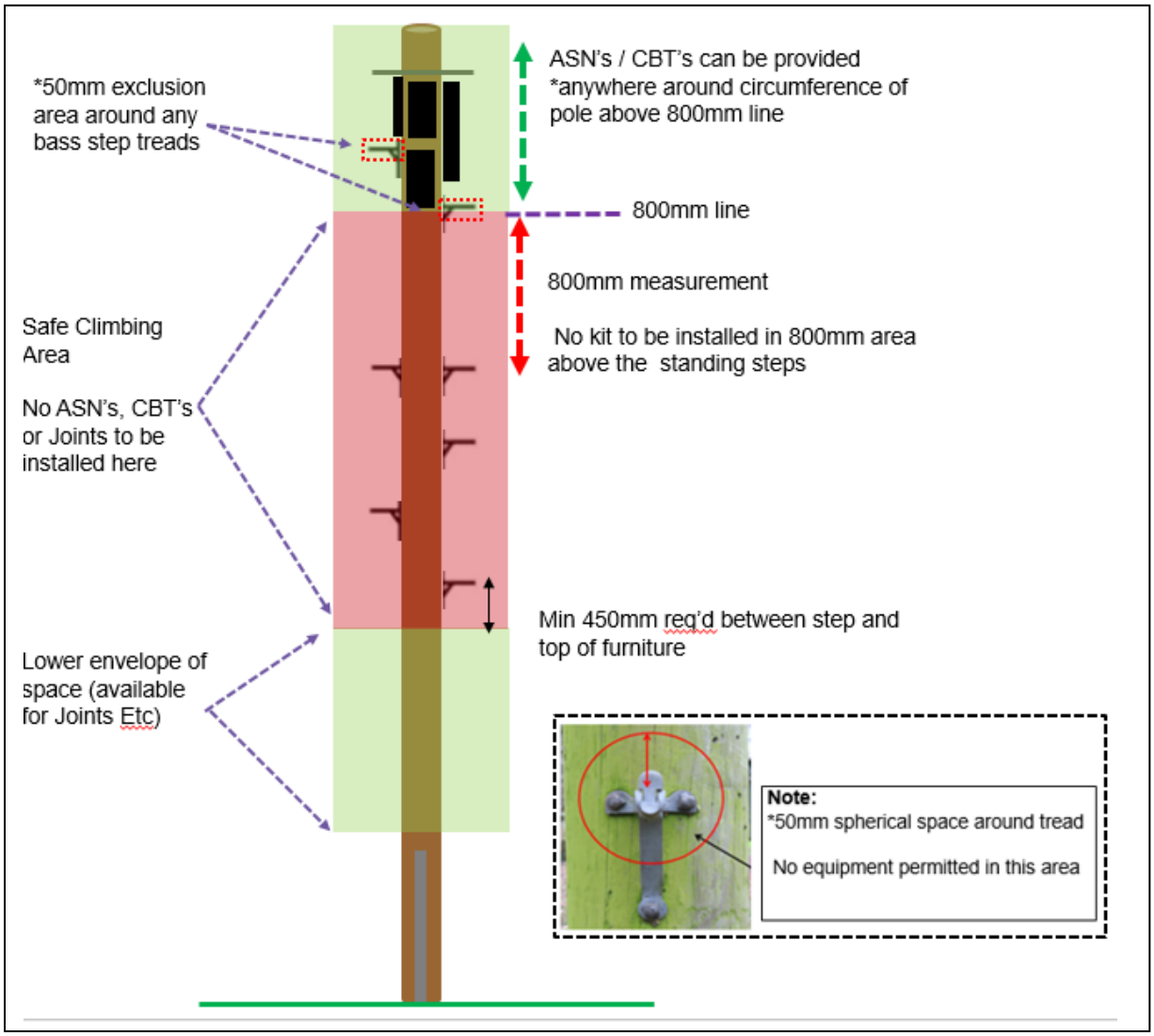

Figure 3 – Permitted envelopes of space on Poles

Figure 4: Example of Back to Back and triple Stand off Brackets

Figure 5: Preferred block location on Crown Ring Poles

6. CBT Installation on Hollow Poles

Internal Installation - A small flexible CBT (aka a Squid) can be mounted on the ring inside the pole. Because of the limited space available in the pole, only one CBT, with a maximum of 12 Ports may be fitted.

External Installation – CBT's can be located in an adjacent Joint Box with individual Fibre Drop Cables running down and out of the pole via the Cable entry ports and to the Joint Box.

7. Pole Loading Dropwire Limits

7.1 Radial Poles:

The maximum Dropwire count for Radially Distributed DP Poles, are detailed in Table 2 below

Light Poles	Medium Poles	Stout Poles
40 Wires	40 Wires	50 Wires

Table 2: Radial loadings

7.2 Sideways loaded Poles

Where feeds are solely concentrated on one side of an un-stayed pole, the designated maximum loadings shown in Table 3 apply:

Class of Pole	Max wires within 180° Arc
Light	7
Medium	15
Stout	30

Table 3: Sideways loadings

Where a CP feels that a pole may have reached / exceeded its designated maximum load, the CP may place an Order for a Network Adjustment and Openreach will consider in more detail the validity of the Network Adjustment and if accepted, decide an appropriate solution to provide relief and create the necessary capacity. The CP must not use the pole until it receives written approval from Openreach to do so.

8. Dropwires in Line of Route

The maximum number of Dropwires permitted in line of route, is dependent on the site circumstances. Please see illustrations and tables below, for guidance.

8.1 Un-Stayed Poles / Poles with no opposing wire load

Where multiple wires are running to an un-stayed Pole, or the Pole has no wires opposing that load, then the DILOR consideration applies. See illustration below.

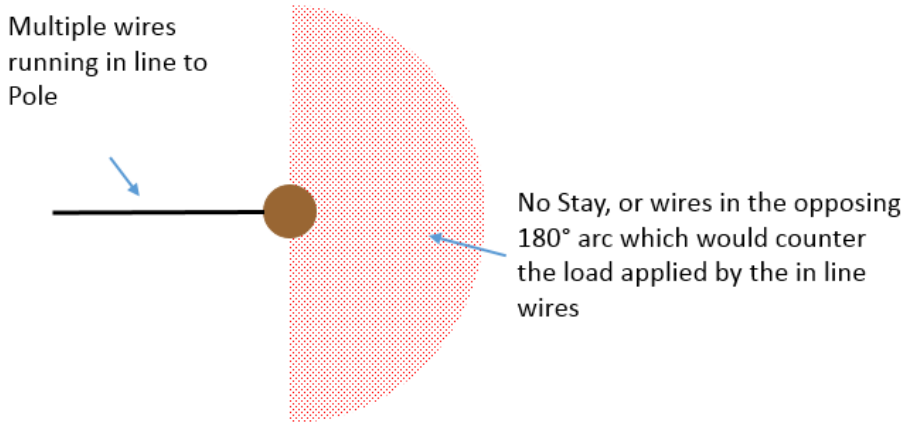

Figure 6 – Pole with no opposing load

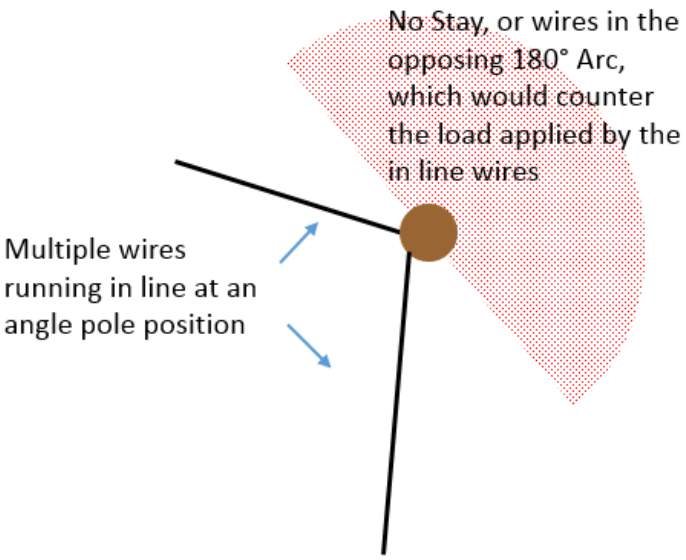

Figure 7 – Angle Pole with no opposing load

Intermediate / In line Poles (with no stays or opposing wire load).
In general, In Line Pole poles need not be considered for DILOR, except where there is a deviation in the route. In such cases, DILOR should then be considered and an illustrative indication of the maximum permitted angles before such consideration applies are shown below.
Where the angle is tighter than that shown by the blue lines i.e. For example, those shown in dotted red, then DILOR applies

Trigger Angle for Light Class Poles:

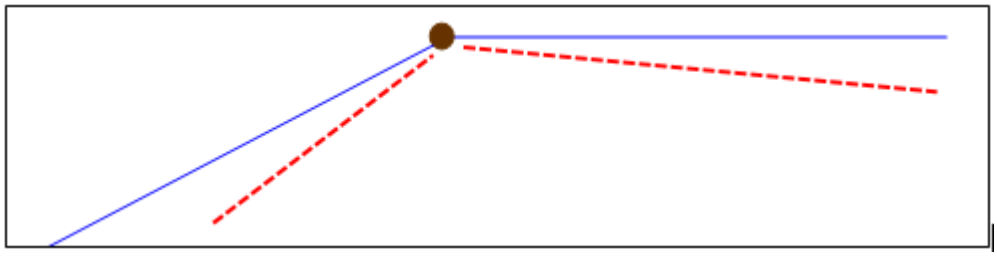

Figure 8 – Angle, Light Pole

Trigger angle for Medium Class Poles:

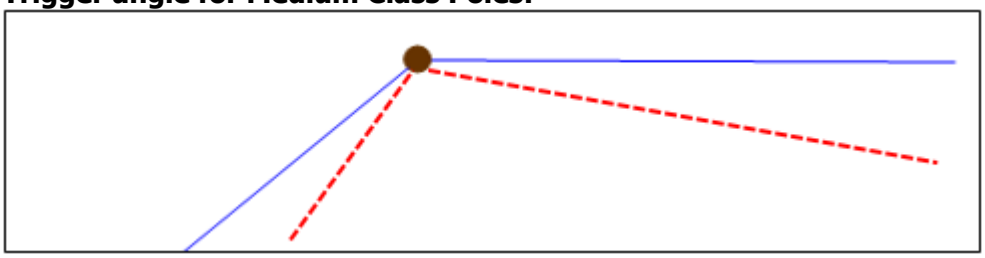

Figure 9 – Angle, Med Pole

Loading limits for poles with no stays or opposing wire load.
Where a pole has no Stay or wires in an opposing arc and it has been determined that DILOR applies, the maximum number of Dropwires permitted in line of route is shown in Table 4 (below).
NB: These limits apply to Copper, Fibre wires, or a mixture of both types.

	Wires crossing carriageway			**Wires not crossing carriageway**		
	One or both poles are Light class	Both Poles are Medium class	Both Poles are Stout Class	One or both poles are Light class	Both Poles are Medium class	Both Poles are Stout Class
Max permitted wires	3	4	5	4	5	6

Table 4 – Maximum wires in line of route

Note:
These standards do not apply to poles classified SC, or any pole with a planting depth less than 1.2m, which is waiting an SC assessment – *The limit for these Poles is 2 wires.*
The rules also apply on Joint Use (JU) poles. NB: All JU poles will be a minimum of **MEDIUM** gauge.
The A1024 process *cannot be* used to report the provision of an additional wire in excess of the limit.

8.2 Stayed Poles, or poles with an opposing wire load

The DILOR wire limits in Table 4 above assume that poles are un-stayed, or have no wires opposing the load applied by the in line wires.

Where Stays can be provided, or there are one or more wires present which oppose the in line wire load, a higher number of wires are permitted in line of route. See illustrations and Table 5 below.

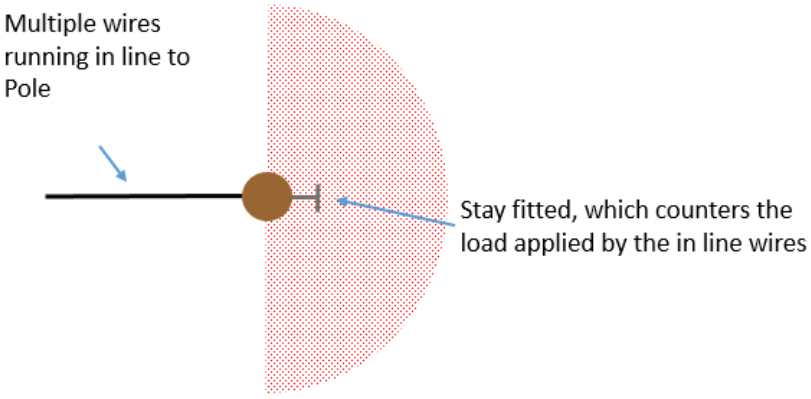

Figure 10 – Stayed Pole

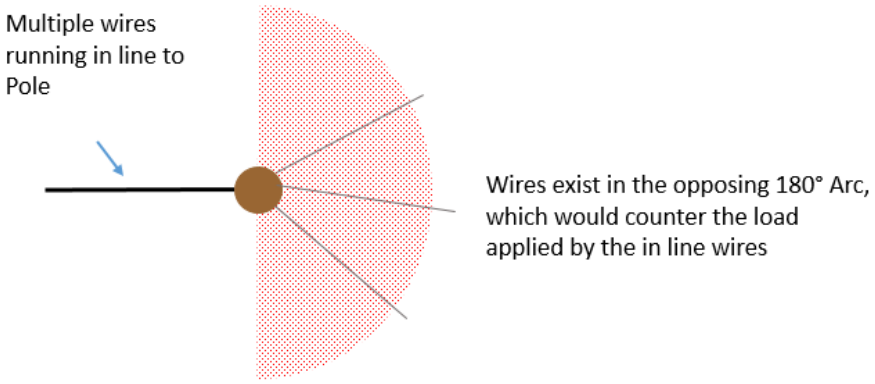

Figure 11 – Pole with opposing wires

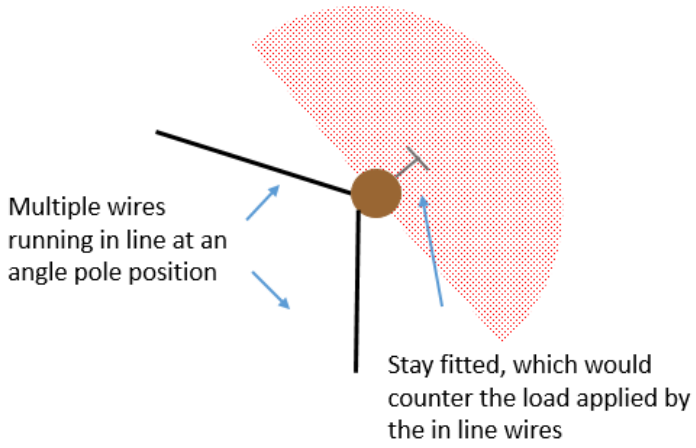

Figure 12 – Angle Pole stayed

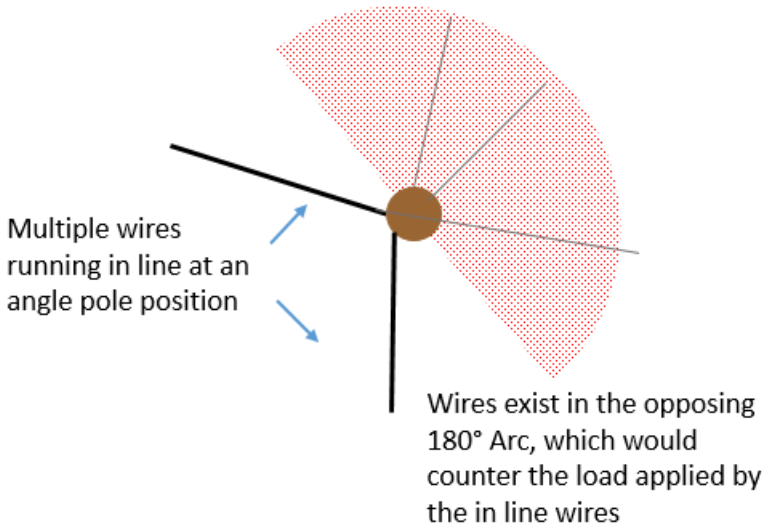

Figure 13 – Angle Pole with opposing wires

Loading limits (Stayed Poles / Poles with opposing load)
Where the Pole has a Stay fitted, or wires applying an opposing load, the following loading limits apply.
NB: These limits apply to Copper, Fibre wires, or a mixture of both types.

	Where one or both poles are Light Class	Where both Poles are Medium or Stout Class
Maximum wires	8	12

Table 5 – Max wires - Stayed Poles / Poles with opposing load

9. Overhead installation Clearances

Cables shall be installed in accordance with the minimum ground clearances detailed in Table 6.
Note Cable ground clearance are measured at the lowest point in the span

Crossing Type	**Minimum Clearance**	
Cable or Dropwire crossing a carriageway (Public or Private) Private drives, with access to other properties Field Entrances and access to private land from Carriageway with unrestricted vehicular access	5.9m (wherever possible) Where 5.9m is not achievable, the best achievable height above 5.5m shall be obtained, with the following as an absolute minimum: • Dropwires 5.5m • Aerial Cables 5.6m	
Private drive (No access to other properties) Private Land (owned by the property being served)	No set minimum. Instead, wire should be erected as high as reasonably practical, taking into account foreseeable hazards / risks and any requirements of the land owner	
Private Land being "Flown Over"	See Electronic Communications Code	
Footpath, Bridleway, Cycle route or Towpath	3.7m	
Railway, light railway, tramway or trolley vehicle system crossings	7.0m above the rails	NB: Railways with overhead power catenaries must NOT be crossed with Dropwire /Aerial cables.
Railway crossings in goods yards where mobile cranes operate	9.1m above the rails	
Canals and other navigable waterways	Install as required by authorities responsible for waterways and shipping	
Non-navigable waterways	5.0m	
For any other circumstances	Contact the SA for Guidance	

Table 6: Overhead clearances

10. Maintenance of minimum clearances, and working on poles

Any pole which has wire's or cables with less than 5.2m of clearance across a carriageway must NOT be climbed. The only acceptable method of working on a pole with *ANY* wire below 5.2m is by Mobile Elevating Work Platform (MEWP) or by scaffolding.

CPs shall report any Openreach wires below 5.2m using the A1024 process, the details of which can be found in the PIA Product Description.

Wires belonging to CPs must not be allowed to sag or dip below 5.2m. Any wire below this height shall be rectified by the CP as a matter of urgency, with an expected maximum clearance timescale of thirty (30) days.

CPs must provide a Contact Point that will allow easy reporting of any such low wires. The detail for contact points must be logged with the Openreach Customer Service Centre (CSC) and kept up-to-date in the Customer Service Plan (CSP).

11. Minimum clearances between cables

Where cables supported by spiral clamps are located directly alongside each other on a Ringhead. One or more must be protected, typically using a 500mm length of Telenco Protector Cable Abrasion, or a similar product.

Figure 14 – Clamp protection

Where Dropwires are to be attached on the side of the pole, a minimum vertical separation distance of 300mm shall be provided. In exceptional circumstances where 300mm separation is not achievable, a reduced separation distance of 150mm is permitted.

12. Clearances from Overhead Power Lines

All wires must be erected and maintained to achieve the required clearance from Overhead Power Lines.

The clearances and specifications are published in Energy Networks Association Document - Technical Specification PO5 (as updated and revised from time to time), which is available from the ENA.
http://www.energynetworks.org/info/find-us/contact-us.html

Within Openreach, a Glovebox Guide is used to inform engineers of power rules and this is also provided for CP's below:

Overhead power glove box guide.pdf

13. Joint Use of Electricity Poles

DNO Poles are not owned by Openreach so do not form part of the PIA product. CP's wishing to attach to Electricity Poles as part of their deployment will need to strike a Joint User agreement with the relevant DNO.

The technical requirements (inc separation distances on poles) for Joint Use of Power Poles are provided in Energy Network Association document EB/TP3 *"Telecommunications Providers / DNO's Joint Use of Poles".*

14. Maximum Span Lengths

The standard maximum span length for pole to pole, pole to premises is 68 Metres.

Exceptionally, spacing between existing poles may be found longer than 68 metres. Where this is the case and where the span in question does not cross railway or carriageway, spans of up to 85m are permitted. In all such cases, the standard minimum install height clearances (Driveway, Verge etc.) must be provided.

Where the span crosses Carriageway, spans of up to 75m are permitted. In all such cases, a minimum wire install height of 6.5m must be provided over the carriageway section.

Where the span involved runs from pole to premise, or, where the CP may intend to erect a new pole of their own that may create span length greater than 68m, they must first consult the Openreach SA, who will consider the specific site circumstances before advising in writing whether the installation may proceed. The following information is key to any consideration and will need to be supplied by the CP:

- Length of proposed span
- Maximum achievable height of cable
- Whether the cable will cross carriageway or railway
- Gauge of Openreach pole (Light, Medium or Stout)
- Whether the pole is stayed / can be stayed

15. Cable Marking

The cable sheath must be marked in such a way as to uniquely identify the owning CP at all pole attachment / termination positions (including intermediate poles). The markings must be clearly visible and remain for the period of use of Openreach poles.

Cables bearing the ownership markings of BT or Openreach must not be deployed by CP's.

The CP must have and maintain an up-to-date record of all uses of Openreach poles including location, type of fixing and usage.

16. Shallow Climbable Poles

16.1. Special Instructions for Shallow Climbable (SC) Poles:

Shallow Climbable or 'SC' poles are marked with a green 'C' label (see Figure 15). All SC poles have been tested and subjected to a risk assessment by fully qualified pole testers. They are safe to climb and work on, provided that the conditions detailed below are observed.

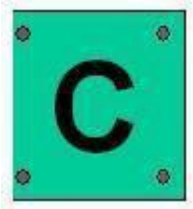

Figure 15: Shallow Climb label

16.2. Dropwire Loading on SC Poles

SC Poles will have a white rectangular white label attached (A559 Label – See Figure 15). This details the maximum number of Dropwire spans that can be fitted to the pole in any 180 degree arc.

To check that the wire limit has not /will not be exceeded, follow steps below:

Step 1:- Count all the dropwires in the fullest 180° arc. (A)

Step 2;- Count the remaining dropwires in the opposing 180° arc. (B)

Now subtract A from B – This figure should be no greater than the number punched out on the white A559 label.

Where the number either already exceeds or will be exceeded by the addition of another wire, the pole cannot be climbed, but can be accessed via a MEWP.

NB: Normal pole loading limits do not apply for SC Poles. Use the limit shown on the A559 label (Figure 16).

Where a CP's deployment is likely to take the wire count above the limit shown on the A559, the CP shall obtain Openreach's prior written consent before connecting any wire above the limit.

The CP shall not use the pole until it receives written approval from Openreach to do so.

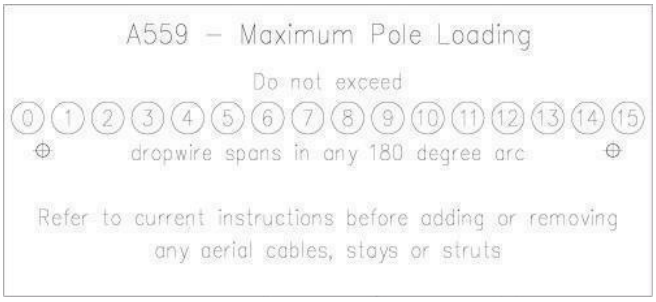

Figure 16: A559 Maximum Load label

16.3. Climbing Limitations on SC Poles

- We strongly advise CPs not to climb or attempt to climb a pole if there is a Severe Weather Warning in force in the area
- No more than one climber permitted on the pole at any time

16.4. Pre-use Checking of SC Poles

All poles - including SC poles - must be checked prior to climbing. See Pole Pre-Use Check Procedure elsewhere in this document.

The only variance in the check is with regard to the 3m mark. SC poles will have a 3m mark between 1.8m and 2.05m (2.08m for imperial poles) above ground. It is essential to check that the 3m mark is between these limits.

17. Pole Labelling

17.1. Pole Test Label

Poles will have a plastic test label fitted (A558), indicating the year/month of last examination by a dedicated Openreach Pole Tester. The colour of the label may vary, depending on the test cycle. Poles with these labels were considered fit to remain in service at time of test.

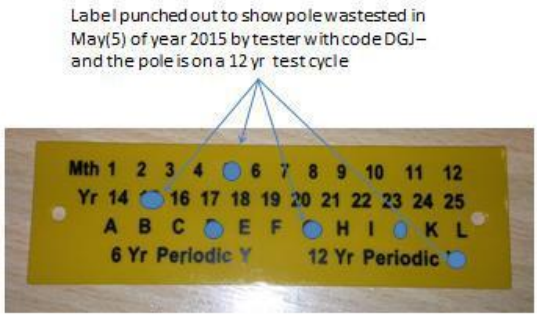

Figure 17: A558 Label

Poles less than 17 years old may not have test labels fitted, as programmed periodic pole testing does not begin until a pole reaches 17 years old.

A pole older than 17 years, with no label on it must not be climbed, but may be worked on from a MEWP or Scaffold Tower subject to a satisfactory risk assessment including a "Pre Use Check" by the CP.

17.2. D Poles

Marked with a red D (aluminium, approx. 45mm x 45mm), and also a red date label. These poles **must NOT be climbed,** but may be accessed from a MEWP or Scaffold Tower.

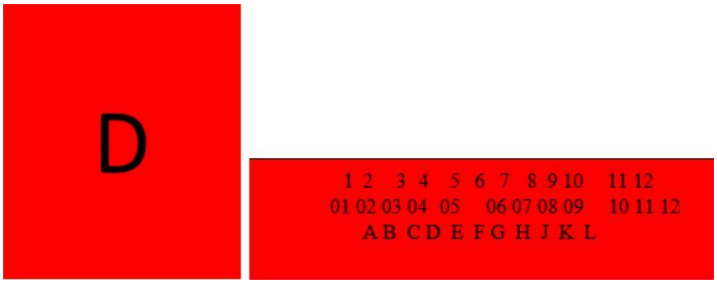

Figure 18: D and A558 Labels

17.3. Other Pole labels (aluminium, 45mm x 45mm)

SD (RED) – Pole is planted at shallow depth – These are not currently prioritised for renewal. They must not be climbed, but can be worked on from a MEWP or Scaffold. Work permitted includes renewal of existing Drop Wires and the attachment of new Drop Wires, but not Aerial Cables.

C (GREEN) – **Shallow Climbable -** Pole is marginally shallow, but is OK to climb as long as additional rules are followed (see additional info for "C" Poles in section 6).

H (ORANGE) – Hazard –The Pole is within 1m of a defined Hazard (spiked railings etc) – MEWP access only, but full range of engineering activities are permitted.

Z (GREEN) - **Safe Climb Zone Pole** – The Pole is within 1m of a defined hazard, but has been assessed as having a Safe Climb Zone, which allows those who have obtained accreditation (details of which are available via

the Accreditation Guidelines) in the use of a Z pole to climb the Pole. For those that do not have the accreditation in the use of Z poles, these poles shall only be accessed and used via MEWP. A full range of engineering activities are permitted.

Figure 19 - Other Pole Labels

17.3.1 Level of work permitted on D & SD Poles

The level of work permitted on a D or SD Pole will depend on the specific status of the Pole. See Table below for a summary of permitted attachments

Equipment Type	Policy D Poles (Dec and Dam)	Non Policy D and SD Poles
*Like for Like replacement of existing Dropwires	Permitted	Permitted
Addition of new wires	Not permitted	Permitted Subject to the conditions detailed below.
Fibre Connectivity (CBT's, Manifolds etc)	Not permitted	Permitted

Table 7 – Permitted work on D / SD Poles

17.3.2 Conditions for attachment of wires to D & SD Poles

New Dropwires may be added, where the following criteria below can be met:

- Pole is not classified 'D' due to internal or external Decay, or damage. *To check "D" status, see SDEDS File*
- Pole is not classified as PIDOC (Pole in danger of collapse)
- Pole does not have an unbalanced load (i.e. Is clearly leaning)
- When added, additional wires will **not exceed** 75% of the maximum load of the pole (refer to table below).
- Pole is subject to a successful on the day hammer test and is accessed using a MEWP

Light & Medium		Stout Poles	
Original max loading	75% of max loading	Original max loading	75% of max loading
40	30	50	38

Table 8 – 75% Loading limits

Details for individual poles can be found in the data file, which is available to CP's through the SDEDS site.

17.4. A1024 labels

Poles or associated plant with identified defects (but which do not make the pole 'D') will have a Purple or yellow, plastic A1024 label fitted.

The detail of the defect is written onto the label, and also recorded on the Openreach A1024 database. This label is removed when a defect is cleared.

Figure 20: A1024 Label

18. Pole Pre-Use Check Procedure

It is essential that CPs must check the integrity of all poles before they are worked on and/or used. This is a mandatory requirement, and must be completed irrespective of how the pole is to be accessed. It must be completed both for any access to and use of a pole whether climbing, MEWP or Scaffold Tower.

The Accreditation Guidelines require any Customer Personnel using poles to have the appropriate accreditation and be able to demonstrate that they are able to complete a pre-use check.

The Openreach network is comprised of many different pole types, and some poles will have a differing test regime. It is part of the Pre-Use Check to ensure that the pole is compliant with Openreach's test regime, by checking the applicable test history.

To help with this part of the pre-work check, a PDF handout is available below. This can also be printed and laminated if required.

Pre Climb Pre-Work check for PIA CPs.do

19. Attachment to Chimney Stacks

The house end attachment of any newly provided CP Dropwire running from a pole must not be made onto a Chimney Stack.

For clarity. On a Gable end situation, attachment may be made further down the stack, providing it is no higher than the roof line. See figure below for illustration.

Further information on the background to this requirement is available from the Openreach SA.

Figure 21 – Attachment to gable end chimney stack

20. Cable Coils on Poles

Where a cable coil is to be left permanently on a pole, it must be suitably housed within a coil management bracket. See example below. Unmanaged / loose coils are not permitted.

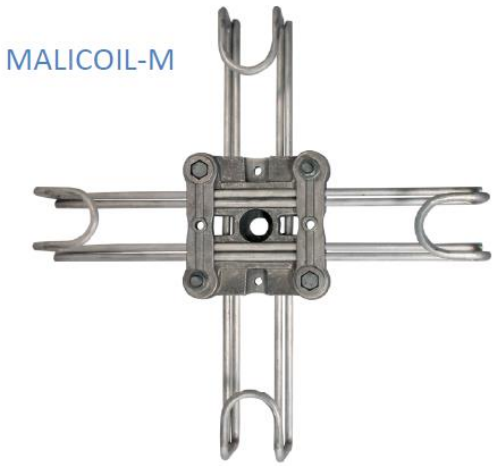

Figure 22 – Coil Bracket

Figure 23 – Coil brackets installed

The example bracket shown above is a Malicoil product, supplied by Sicame UK. Other alternative types of coil bracket may be used, subject to prior approval by the Openreach SA.

20.1 Coil Bracket installation requirements

Any coil bracket fitted must:

- Be fitted in the lower pole envelope and be above the capping, or a minimum height of 2m above ground and a minimum of 450mm below the first climbing step. It must also not project above or below these points.
- Not project into the highway/footway or any other area of hazard.
- Be easily removable for the purpose of pole testing.
- Not impede safe ladder placement / climbing of the pole
- Have cable coil secure to the bracket arms with cable fixing straps

21. Equipment on Openreach Poles

21.1 Additional requirements for CP's Equipment

- Wire / Equipment provided on poles must not inhibit access to Openreach or other CP's Equipment (Block Terminals / CBT's)
- Equipment must be deployed in a way which is respectful of the limited envelope of permitted space (particularly at the Pole Top). This to facilitate maximum usage of the pole by other CP's and Openreach.
- CP's Cables / Network equipment and the services provided through them shall not cause, or have the potential to cause interference or disruption to the services of Openreach, or other CP's.
- All Equipment used shall be designed to withstand unfavourable weather conditions. i.e. Steel items shall be either stainless or galvanised steel and all Plastic components shall be UV stable.

22. References

- ENA Documents -TS PO5, EB/TP3.
- *Telenco Products - http://www.telenco-networks.com/en

23. Change Record

Issue	Date	Author	Change
L	6th April 2020	Glen Barford	Introduction amended (Page1). New envelope of space policy – Sec 5 (Bullet 2) and Figure 3. New span length policy – Sec 14
K	17th Feb 2020	Glen Barford	Full review – issued after consultation with OTA, CP's and Openreach stakeholders
J	23rd Jan 2019	Glen Barford	Full document review, with numerous changes throughout
H	July 2017	Glen Barford	Sec 2.1 Cable performance requirements amended. Sec 7 – A558 info updated. Sec 8 - Latest version pre-climb check included.
G	February 2016	Nick Adams	New section 8 and other minor revisions
F	November 2011	John Pearson	Section 7 revised on no test label
E	November 2011	John Pearson	Section 7 revised on D Pole working
D	October 2011	John Pearson	Inclusion of DILOR table at 3.8; New section 6 – Shallow Climbable poles: Amendments to 3.4 a new 3.5 Fibre labelling; Amendment to sec 5 Cable marking
C	May 2011	Nick Adams	Change to Ice /Wind data and inclusion of pole labelling information
B	April 2011	Nick Adams	Addition of section 4.3 – clearances between cables
A	December 2010	Nick Adams	New Document

23. Specification Authority (SA)

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24. Appendix 1 – CP Cable Testing

Wherever Overhead deployment is to be used, CP's shall submit details and samples of the cables to be deployed to Openreach, for testing / approval. Under no circumstances must an overhead cable be deployed which has not received prior written sign off from the Openreach SA.

This is a one off requirement that only needs to be repeated if the CP decides to change the type of cable used at some future point in their deployment.

To facilitate sign off, the following is required by Openreach:

An electronic Copy of the Manufacturers Data Sheet - which must be sent to the Openreach SA and include the following:

- The Cables Type / Part No
- Confirmation of the cables' ultimate tensile load (the load at which the cable breaks). This information may be provided in the Data Sheet, but if not, a Load Test report from a reputable Testing House will suffice.
- Confirmation of the cables suitability for use under overhead power lines of up to and including 11kV, with a minimum vertical clearance of 1.8m. Again, this information may be provided within the Manufacturers Data Sheet, or alternatively, a HV Test Report from a reputable Testing House.

Cable samples – To facilitate physical testing, the following must be supplied to Openreach in a waterproof bag:

- A 50 metre sample of each cable
- 10 x Clamps for each cable type
- 2 x Fibre Locking Bollard – If these are used within the CP's architecture
- A copy of the Cable Datasheet, which must be attached to the cable sample, stating the specific Cable Type / Part No
- The name of the CP and contact details

A downloadable process flowchart is available as set out below.

Where a CP feels that the cable they are looking to deploy is identical to one already tested / approved / used by Openreach, they may request that their cable is not subject to the physical testing element of the cable evaluation, but this is only permitted where the cable the CP is looking to use is on the approved list of Openreach cables, which is available for download below and in such cases only where Openreach receives written confirmation from the cable Supplier / Manufacturer, that the CP and Openreach cables are identical.

a. Downloadable files

CP8 - Cable Testing - Proposed - Octobe

Openreach Overhead Cables.do

End