openreach

ISIS practice
For Openreach and Contract Partners

AEI/ACC/S017

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Overhead Pole Survey

About this document ...

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Content approval

This is the Issue 6 of this document.
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Version History

Version No.	Date	Author	Comments
Issue 6	19-Apr-2023	Quality Standards & Accreditation	Author/content approval details changed, Question 15 changed. Practical reduced to one pole and mandatory access to systems required
Issue 5	31-Jan-2023	Quality Standards & Accreditation	Document fully reviewed, questionnaire re written, new practical and modular guidance added.
Issue 4	19-Jan-2022	Quality Standards & Accreditation	Questionnaire updated. Wording to Q7,Q28,Q29 and Q30 updated.
Issue 3	29-Nov-2021	Quality Standards & Accreditation	Questionnaire renumbered and scores adjusted
Issue 2	26-Nov-2021	Quality Standards & Accreditation	Author/content approval details changed, module moved into new format and questionnaire updated.
Issue 1	06-Dec-2019	Bob Reader	New document

Table of Content

1 Introduction

This ISIS is reviewed and updated annually. Between reviews any changes are communicated using Access Engineering Communications (AEC).

Links to ISIS documents, accreditation modules and all reference material can be found in:

- Technical Library, Bookstore or Policy & Build App for Openreach.
- CANDID for Contract Partners.

Answers for all modules are available via the Author of this document (see above).

In order to comply with the requirements of this accreditation module the Assessor must follow the procedure below:

- Allow the time shown for the Delegate to complete.
- Explain that reference documentation can be used.
- The criteria for **all** sections **must** be fulfilled in order to meet the requirements for this module.

2 Scope

The target audience for this accreditation is anyone working on the Openreach network including Contract Partners.

This module is essential for anyone carrying out Overhead (OH) pole surveying. The overall content is covered in the following Description and Method sections, in more detail.

3 Description

This module consists of two parts, a questionnaire and a practical session.

Prerequisites: Delegate must have completed:

- AEI/ACC/S013 - Network Regulations Accreditation for Surveyors

Content: It will check the Delegates understanding & ability to complete the survey of Openreach's OH network for polling work using current working practices and quality standards.

Duration: Questionnaire 90 mins **Practical:** Open

4 *Measurement*

Questionnaire: The Delegate must achieve **80%** or greater to be successful. For Openreach people the questionnaire can be found on Learning Home as an online course using the code **ORCHK065**

Practical: Using the Module Guidance and ISIS documents for reference, the Assessor will check that the Delegate completes the tasks outlined in the Method section.

The Module Guidance outlines where coaching can be provided, highlighted by a Coaching Mark (**C**) next to each Assessment Pointer. No more than **30%** of the available Coaching Marks can be used.

Assessor Note: The exact score required to pass the questionnaire and the allowed number of Coaching Marks can be found in the Delegates Details section.

Post Assessment: You **must** enter the results onto the Skills Passport or Smart Awards for Contract Partners**.**

5 *Safety*

Caution: If the Delegate displays a disregard for, or lack of knowledge of safety, then STOP THE ASSESSMENT - re-assessment required - refer to –safety module for guidance

Using their mandatory holding of safety and relevant access equipment, the Delegate will demonstrate to the Assessor, the correct safety practices required to successfully complete this accreditation module. This may include a check of:

- Relevant safety modules on National Operative Passport Scheme (NOPS) card (Partners Only).
- Openreach Construction Design Management (CDM) 2015 Regulations Policy followed
- Relevant New Roads and Street Works Act (NRSWA) qualification.
- Personal Protective Equipment (PPE).
- Equipment checks.
- Use of Telescopic Rods

6 *Method*

Questionnaire: Using reference documentation where required, the Delegate will complete the questionnaire. A maximum of **90** minutes is allowed for this exercise.

Practical: Using the correct tools, equipment and working practices, the delegate will complete an overhead pole survey.

The assessment will need to be completed under live working conditions, using one of the methods below.

- Onsite – During a new survey
- Onsite – During different parts of different surveys
- Onsite – In a simulated or training environment

Survey Requirements: The Delegate must survey one new pole location demonstrating that all regulatory and safety aspects have been identified whilst building to our network policies.

The Delegate must demonstrate their understanding and use of the following systems:-

- Line Search Before You Dig (LSUBD)
- Openreach Pole Placement Risk Assessment
- Magic Map
- Gazetteer

7 *Delegate Details*

Module No	AEI/ACC/S017
Title	Overhead Pole Survey
Date	
Delegate's name	
UIN/Licence No	
OUC	
Assessor's name	

Assessor's UIN	
Questionnaire	PASS/FAIL
Practical	PASS/FAIL
Notes	

Questionnaire Scoring:

Total Possible Score	Score Achieved	Required Score to Pass
46		37

Practical Scoring:

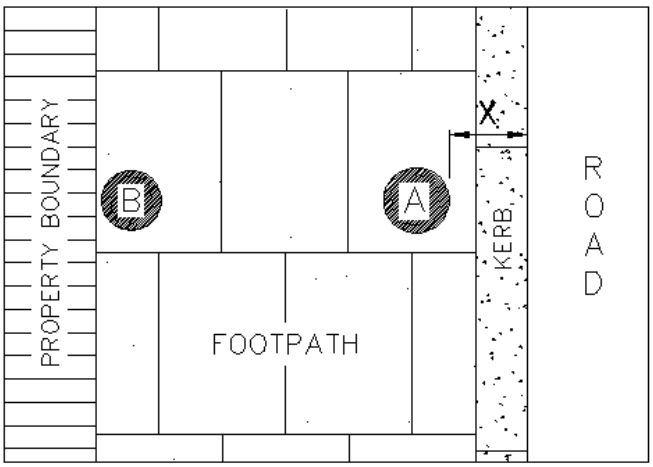
Total Coaching Marks Available	Total Coached	Total Coaching Marks Allowed
6		2

8 *Questionnaire*

No.	Question	Mark(s)
1	Which of the instances below would you be required to provide / gain a wayleave or licensing agreement? Select all that apply. A. When planning to attach a new wire to a customer's house B. For poles or Openreach plant to be provided on private property to serve another property. C. When a pole to be provided in a public footpath. D. When permission is required to attach a new wire to a house to serve another customer's property. E. If a pole is to be provided next to a school	
		1
2	When surveying for new pole locations, which policy must you follow? A. SFY/HSH/C031 - Openreach Construction Design Management (CDM) 2015 Regulations Policy B. SYF/BDW/D102 – Openreach New Pole Safe Dig Policy C. SFY/ TLT/D012 – Openreach Pole Construction Design Management Policy (CDM)	
		1
3	'For all planned excavation work, (including poling), it is mandatory for all work originators, (e.g. planners and surveyors), to thoroughly check routes for the presence of what?' A. Existing ducts that can be used B. Local welfare facilities C. Hazardous Pipelines	
		1
4	Which search tool must be used when surveying pole locations? A. Flying Wires Act Register (FWAR) B. Line Search Before You Dig (LSBUD) C. Endangered Wildlife Search (EWLS)	

		1
5	What do the markers shown indicate the presence of?   A. High pressure water pipeline B. High pressure petrochemical pipeline C. Underground high voltage electricity line	
		1
6	Whilst surveying a job involving excavation work, you notice markers which are the same or similar to those shown in a previous question. The markers are about 3m from your proposed excavation, what should you do? A. Contact the relevant pipeline agency and arrange for a representative to identify the exact location of the pipeline. B. Contact your manager and planner and make them aware of situation. C. Do nothing and proceed with the survey.	
		1
7	We should plan network components (poles, boxes, duct, nodes, joints etc.) as far as possible from a body of water. As a minimum, network components should be what distance from a body of water? A. 5m	

	B. 1m C. 10m	
		1
8	Any new poles must be planned to be at least what distance, horizontally from any cellular telephone tower / mast? A. 5m B. 10m C. 50m	
		1
9	When planning new poles, Openreach and its partners must not breach our Environmental Obligations as detailed in EPT/OAM/F026. Please select all of the protected areas A. Area of Outstanding Natural Beauty (AONB) B. Grade 10 listed buildings C. Local Nature Reserve D. Conservation Areas E. National Rail property F. National Park	
		1
10	What is the main consideration when positioning poles in the vicinity of road junctions? A. They should only be sited where accidents cannot happen B. They should not be sited where they are likely to obstruct the view of motorists C. They can only be sited a minimum of 3 metres from the junction	
		1
11	When planning for manual poles to be installed, what must you consider?	

	A. Only hollow poles can be erected manually B. Only 6m poles can be used for manual pole erection C. Lighter poles should be picked wherever possible for manual work	
		1
12	Openreach's current range of creosoted wooden poles cannot be used within what areas? A. School playgrounds, play areas or other places where children will congregate. B. Police station grounds C. Hospital grounds	
		1
13	When planning a pole near a kerb edge, we must try and maintain a minimum distance. What is the measurement of X?  A. 300mm B. 1m C. 500mm	
		1
14	After you have decided the pole location, what additional considerations must the surveyor make? Select all that apply	

	A. Ladder positioning, can the engineer climb the pole safely B. Pole testing, can the base of the pole be accessed C. Street lighting, will the engineer be able to see when climbing at night	
		1
15	What is the minimum width of footpath that should be maintained when planning a new a pole in the footway? A. 1.5m B. 1.2m C. 1m	
		1
16	What type of situation may require a Non Standard Solution to be implemented? Select all that apply. A. Where a new pole is required on council land B. When supply issues create a shortage of poles C. Where you are unable to fit stays on poles D. If an overhead power conflict between poles is encountered.	
		1
17	When positioning new poles, what practical and engineering aspects must you consider? Select all that apply. A. Span length limits B. Safe access to the pole C. Ground conditions, avoid sloping ground if possible D. Is the pole location on private or public land E. Likelihood of multiple objections F. Potential hazards like high pressure pipes	
		1

18	Dropwires or Aerial cables that are deflected mid span by trees require a visual examination to estimate the angle of deviation. If the angle of deviation is greater than 30 degrees, what action should you take? A. Protector Cable Abrasion (PCA) should be fitted B. Tree cutting should be considered C. New duct should be planned and re-route the cable	
		1
19	What is the minimum unobstructed road width required past the worksite, for 2 way working, if the road is on a bus route? A. 5m B. 6m C. 6.75m	
		1
20	Where a pole is un-stayed and does not have wires in an opposing arc, what is the maximum number of Dropwires allowed in line of route between two stout poles, where the wires cross the carriageway? A. 6 B. 5 C. 4	
		1
21	Where the pole has a Stay or wires applying an opposing load, what is the maximum number of Dropwires allowed in line of route between two medium poles, where the wires do not cross the carriageway? A. 5 B. 8 C. 12	
		1
22	What is the standard span length for copper and fibre Dropwires?	

	A. 68m B. 58m C. 48m	
		1
23	Where site circumstances prevent the fitting of Stays, can multiple Dropwire 15's be used as an alternative to aerial cable beyond the Distribution Pole (DP)? A. Yes B. No	
		1
24	Can new poles be planned for greater spans than 68m? A. No, 68m is the maximum distance allowed between new poles B. Yes, in exceptional circumstances where it is not possible to position a pole within 68m longer lengths can be considered? C. Yes, 100m can be considered in exceptional circumstances	
		1
25	What is the maximum span length of an un-stayed lightweight aerial cable between medium poles? A. 75m B. 68m C. 55m	
		1
26	What is the maximum span length of an un-stayed lightweight aerial cable between stout poles? A. 75m B. 68m	

	C. 55m	
		1
27	You need to renew an angle pole which has Pull on Pole (POP) measurement of 8m. Which class of pole would you choose to support the load un-stayed, where the cable is a single lightweight aerial and where trees are present? (Use the Route Stability Calculator for this) A. Light pole B. Medium pole C. Stout pole	
		1
28	What additional factor should you consider if you are aware you are planning a poling job in an area with “poor soil” conditions? A. You must plant the pole at a deeper depth B. You must plan for a 3 way stay C. You can only use 12m medium poles in these areas	
		1
29	What is the standard planting depth for a 10m medium pole, which is to be a DP? A. 1.5m B. 1.8m C. 2m	
		1
30	What is the standard planting depth for a 10m medium pole, which is to be a Carrier Pole (CP)? A. 1.5m B. 1.8m C. 2m	

		1
31	What is the standard install height for a Dropwire across a carriageway? A. 5.2m B. 5.5m C. 5.9m	
		1
32	What is the standard install height for an aerial cable across a carriageway? A. 5.6m B. 5.9m C. 6m	
		1
33	What is the standard install height for a Dropwire across a field entrance with unrestricted vehicular access? A. 5.2m B. 5.5m C. 5.9m	
		1
34	What is the standard install height for an aerial cable across a bridleway, cycle way or pedestrian footpath? A. 5.2m B. 4m C. 3.7m	
		1
35	What is the maximum span length when attaching a Dropwire to an eyebolt 2A in a pebble dashed or rendered wall?	

	A. 40m B. 55m C. 68m	
		1
36	What is the maximum span length when attaching a Dropwire to a bracket 22 mounted on plastic facia with sound timber behind, where the Dropwire crosses a carriageway? A. 40m B. 55m C. 68m	
		1
37	What is maximum Dropwire span length when attaching to a bracket 32? A. 40m B. 55m C. 68m	
		1
38	What is the maximum span length when fixing into brick or masonry for a lightweight aerial cable. A. 40m B. 55m C. 68m	
		1
39	Does this picture indicate low voltage (less than 1000V) or high voltage (11KV or above)?	

	 A. Low voltage (LV) B. High voltage (HV)	
		1
40	Does this picture indicate LV or HV?  A. Low voltage B. High voltage	
		1
41	True or false – Dropwires and aerial cables can cross either above or below LV cables?	

	A. True B. False	
		1
42	If an Openreach cable crosses below a Distribution Network Operator (DNO) concentric neutral service cable, what is the required clearance? A. 200mm B. 400mm C. 600mm	
		1
43	If an Openreach cable crosses above a DNO concentric neutral service cable, what is the required clearance? A. 200mm B. 400mm C. 600mm	
		1
44	If an Openreach cable crosses below a DNO Aerial Bundled Cable (ABC) cable, what is the required clearance? A. 200mm B. 400mm C. 600mm	
		1
45	If an Openreach cable crosses above a DNO ABC cable, what is the required clearance? A. 200mm B. 400mm C. 600mm	

		1
46	Is it permissible to run Dropwires or 36FUltra Light Weight (ULW) cables under overhead power lines with a voltage greater than 11kV? A. True B. False	
		1
	Total	

9 *Modular Guidance (Practical)*

The below table should be used as a guide for the Assessor to accurately assess the Delegates knowledge and ability during the practical assessment.

Coaching Marks '**C**' are explained in the Measurement section and the total allowed can be found in Delegate Details.

If an Assessment Pointer is followed by an '**X**' then not only is no coaching allowed, but failure to meet the standard on the Assessment Pointer means that the standard has not been met for the accreditation a whole.

Task Assessment	Assessment Pointer		Document Guidance
Prerequisite complete	Successfully completed.	X	
Questionnaire	Completed 80% or above	X	
Trained /Skilled	Is the delegate experienced and craft competent in this skill?	X	
Safety	All safety procedures followed, and safe working practices adopted	X	EPT/ANS/A022
	LSBUD (Line Search Before you Dig) process followed	X	SFY/HSH/D053

Risk Assessment	An on-site risk assessment should be carried out	X	SFY/GRA DOCUMENTS
Personal Protective Equipment (PPE)	Correct PPE held, in good condition and used where necessary	X	CPE/NNS/V060
Environment	Weather conditions considered before commencing work	X	
Equipment Available	Delegate has the correct tools and they are in good condition to complete the task to the current work practices and quality standards	X	EPT/UGP/B009
	Tools used correctly and safely	X	
Survey Process	Delegate understands job documentation, prints and plans	X	
	Delegate has access and knowledge of relevant survey systems	X	
Overhead Network	Delegate understands route stability requirements	X	EPT/ANS/A014
	Delegate understands overhead height requirements and climb heights	X	
	Delegate understands Dropwires In Line Of Route (DILOR) requirements	X	EPT/ANS/A011
	Delegate understands Tree Cutting requirements and use of Protector Cable Abrasion	C	
	Delegate can explain the restrictions when planning poles near railway lines	X	
	Delegate understands poling rules and restrictions	X	
	Delegate can demonstrate what action is required if the pole is planted in poor soil / on a sloped bank	X	

	Delegate understands the restrictions when planning a manual pole. Pole size no exceeded, type of excavation considered	X	
	Maximum span length considered	X	EPT/ANS/A011
	Clear line of sight looked for at customers premises	C	
	Platform access (if required)	C	EPT/OHP/C031
	Clearance when passing under or over electricity cables	X	EPT/PPS/B026
Survey Return	All areas of interest clearly marked. Example areas: Hot sites, Hazardous Pipe Lines, Areas of Natural Beauty	X	SFY/HSH/D053
	Openreach Pole Placement Risk Assessment Tool used and report attached	X	
	A55 clearly showing the work required and meets A55 standards	X	
	Cost tracker completed and submitted in survey return (where required)	C	
	Traffic Management (TMA) information provided	X	
	Correct 12-point numerical grid references supplied	X	
	Synthetics provided where required	C	
Regulatory	Permissions identified where planning restrictions apply e.g. conservation areas, sites of scientific interest, areas of outstanding natural beauty, National parks, ancient monuments and Grade 1 / Category A Listed Buildings Regulations	X	EPT/OAM/F026
Wayleaves	All public land options considered before planning on private land	X	
	Private landowner and tenant details identified	C	

	and provided where possible		
	All line plant requiring a wayleave clearly identified on survey return with grid references	X	

10 *References*

All the documents below are available through the sites and systems described in the Introduction section. If you require access to external sources within them, then please contact the Author (see above) of this accreditation module.

Assessors Note: All Openreach people should have access to the Policy & Build app via their work mobile phones. Please make sure that this App is accessed during the accreditation.

- SFY/HSH/A001 - Health & Safety Handbook (Openreach only).
- CPE/NNS/V060 - Guide to Health & Safety Minimum Standards.
- SFY/HSH/C031 - Openreach Construction Design Management (CDM) 2015 Regulations Policy.
- SFY/HSH/D043 - Working in Vicinity of O/H Power (LV & HV) and Joint User Poles
- SFY/HSH/D053 - Planning Excavations Including Hazardous Pipeline and Zone of Interest Process (HPP & ZOI)
- EPT/ANS/A011 - Specification for Dropwire Work
- EPT/OAM/F026 - Environmental Obligations
- EPT/PPS/B026 - Code of Practice
- CPE/NNS/V065 - Non-Standard Solution Process
- EPT/OAM/F015 - Regulations & Definitions affecting Public Maintainable Highway
- EPT/OAM/F025 - Planning Rights & Obligations
- EPT/OAM/F027 - BT Apparatus on Private Land
- EPT/ANS/A010 - Specification for Poling Work
- EPT/ANS/A013 - Minimum Heights & Carriageway Definitions

- EPT/ANS/A014 - Specification for Overhead Route Stability
- NWK/LNK/C319 - Copper - Access Network - Infrastructure - Policy
- EPT/OHP/B085 - Cabling through Trees
- EPT/PPS/B026 - Code of Practice – Protection of Telecommunication Lines from Power Lines
- Safety at Street works and Roadworks Code of Practice (Red
- Planning Policy brief 777
- Planning Policy brief 827
- Planning Policy brief 837
- Planning Policy brief 843
- Planning Policy brief 850

END OF DOCUMENT