

Risk Assessment / Method Statement – Overhead Network Installation.



Project Scope:

Location issues: *Heavy public presence, adverse weather conditions, transport, electromagnetic field(s).*

Detail:

- Installed before work commences
 - Pole.
 - Infrastructure including chambers & ducting.
- To mount Connectorised Block Terminal - CBT (three max) to pole.
- Single Standard Tube - SST cable routed from CBT vertical down pole (secured to pole), through ducting to splitter location.
- CBT primed for service to premises.
- SST cable spanned to subsequent poles (overhead) if / when required.
- Utilise MEWP (Mobile Elevating Work Platform) if / when required.

Hazard Identification and Risk Controls:

Provided in the attached Risk Assessment.

Environmental Protection Measure:

Waste and spoil disposed of in the designated area or receptacle provided for waste.

Quality Control:

The installation will be checked on completion by inspection.

Welfare:

Local knowledge of public welfare facilities beneficial. Local business welfare facilities must only be utilised if/when purchasing products or if permitted (in writing) by owner/manager.

Emergency Procedures:

Reference to instruction detailed within Map group (uk) vehicle pack.

Method:

1. Effectively segregate working area to prevent unauthorised access and provide clear safe, alternative pedestrian routes if work area obstructs existing footway.
2. Pre-climb check to be carried out to make sure the pole we are working on is safe, measure all Drop Wires, leaving the pole crossing Carriageway / non-Carriageway to make sure of no low Drop Wire's.
3. Where HV is present an ultrasonic Measuring device will be required to measure the height of the power lines (ultrasonic measuring device is the only permissible method for measuring HV power cables - DO NOT CONTINUE IF THE ULTRASONIC MEASURING DEVICE IS NOT AVAILABLE.
4. Newly spanned cables under HV up to 11Kv & 33Kv if ADSS fibre cable separations to be a minimum of 1.8 metres below the power cables and a minimum of 1.2 meters away from the HV pole.
5. Erect ladders as per MAP procedure ensuring apex and base of the ladder are secured. Utilise MEWP (Mobile Elevating Work Platform) if/when required (SA001).
6. Install Connectorised Block Terminal - CBT (three max) to pole. Highest point – Apex. Various CBT sizes (4 / 8 / 12 ports) with variety of pre-terminated cable tails up to 350m in length.
7. Single Standard Tube - SST cable routed vertical down pole to duct located at the base of the pole.
8. SST cable routed through duct (draw rope present) to chamber containing splitter. SST cable remains in situ within chamber primed for jointing / splicing to splitter (other workstream).
9. If span is required (no duct present at base of pole) - Attach pulleys at the apex of the pole & subsequent pole/poles.
10. Attach SST cable at the base of the pole.
11. Attach sash line to SST cable at the base of the pole.
12. Pull SST cable through the pulleys across aperture between poles to required pole (duct present at base of pole).
13. If SST cables required exceeds maximum (max 3 SST cables routed overhead) or UG option not available, then 36 Ultra-Light Weight (ULW) cable utilised to eliminate multiple spans. 36 ULW cable routed to joint (small node) located on designated pole.
14. Secure SST cable to pole with approved fixings.
15. CBT to remain in situ on pole, primed for service to premises.
16. Test integrity of connections.
17. Disassemble WAH equipment.
18. Disassemble SLG e.g. remove barriers.

Likelihood		Consequence	
1	Very unlikely	1	Insignificant
2	Unlikely	2	Minor
3	Fairly likely	3	Moderate
4	Likely	4	Major
5	Very likely	5	Catastrophic

	1 in a million of hazardous event	1	No injury
	1 in 100,000 of hazardous event	2	Minor injuries requiring first aid
	1 in 10,000 of hazardous event	3	Up to 7 days absence
	1 in 1,000 of hazardous event	4	More than 7 days absence
	1 in 100 of hazardous event	5	Death

LIKELIHOOD	5	5	10	15	20	25
	4	4	8	12	16	20
	3	3	6	9	12	15
	2	2	4	6	8	10
	1	1	2	3	4	5
	1	2	3	4	5	
	CONSEQUENCES					

□ Location / Activity ○ Hazard	➤ Who might be harmed, ❖ The Hazardous Event The Consequences	Controls	Risk Rating		
			L	C	R
□ Carriageway / removing equipment from vehicle. ○ Traffic.	➤ Technician(s). ❖ Impact from passing vehicle. Catastrophic.	1. Vehicle to be parked with side door (access to cargo hold) adjacent to the footway. 2. Mandatory high-visibility clothing to be worn at all times.	1	5	5
□ Cellular sites / Electromagnetic field (EMF) masts. ○ Non-ionising radiation.	➤ Technician(s). ❖ Exposure to optical radiation. Major illness.	1. Technician training – RF Hazard Awareness.	1	5	5
□ Installation of CBT / SST cable to pole. ○ Working at height.	➤ Technician(s). ❖ Fall from height. Catastrophic.	1. Specific training on pole work / working at height (SA001). 2. Work area secured with barriers below working at height activity. 3. Use of FPE (harness / pole belt / lanyard). 4. Regime of thorough examinations. 5. Refresher training at 3 yearly intervals. 6. Anemometer & training provided on utilising equipment.	2	5	10
□ Installation of SST cable to pole & subsequent poles. ○ Tools & equipment being used at height.	➤ Technician(s). ➤ General public. ❖ Equipment / tooling falling from height. Catastrophic.	1. Specific training on pole work / working at height (SA001). 2. Work area secured with barriers below working at height activity. 3. Use of FPE (harness / pole belt / lanyard). 4. Regime of thorough examinations. 5. Refresher training at 3 yearly intervals. 6. Anemometer & training provided on utilising equipment.	1	5	5
□ Operation of MEWP (Mobile Elevating Work Platform). ○ Working at height.	➤ Technician(s). ➤ General public. ❖ Fall from height. Catastrophic.	1. Specific training on operating MEWP / working at height. (IPAF Training) including rescue training and completion of the Written On-Site Handover Grounds Person Document. 2. Use of FPE (specific harness / lanyard). 3. Work area & vehicle secured with SLG below working at height activity. 4. Refresher training at 3 yearly intervals. 5. Regime of thorough examinations / inspections. 6. Anemometer & training provided on utilising equipment.	2	5	10
□ Testing of equipment (CBT). Highest point – Apex. ○ Working at height.	➤ Technician(s). ❖ Fall from height. ➤ Catastrophic.	1. Specific training on pole work / working at height. 2. Work area secured with barriers below working at height activity. 3. Use of FPE (harness / pole belt / lanyard). 4. Regime of thorough examinations. 5. Refresher training at 3 yearly intervals. 6. Anemometer & training provided on utilising equipment.	2	5	10

□ Location / Activity ○ Hazards	➤ Who might be harmed, ❖ The Hazardous Event The Consequences	Controls	Risk Rating		
			L	C	R
<input type="checkbox"/> Lifting operations e.g. carrying equipment / tooling. <input type="checkbox"/> Manual handling.	➤ Technician(s). ❖ Inappropriate manual handling. Major musculoskeletal injury.	1. Manual handling training provided (induction). 2. TBT on manual handling provided at 1-year intervals. 3. Regular refresher training at 3 yearly intervals.	2	4	8
<input type="checkbox"/> Pushing / pulling activities e.g. pulling cables. <input type="checkbox"/> Manual handling.	➤ Technician(s). ❖ Inappropriate manual handling. Major musculoskeletal injury.	1. Specific manual handling training provided (technician assessments). 2. Regular refresher training at 3 yearly intervals.	2	4	8
<input type="checkbox"/> Accessing / working on underground services. <input type="checkbox"/> Electricity.	➤ Technician(s). ❖ Contact with live conductors. Catastrophic.	1. Approved / Insulated tooling. 2. Voltage detection equipment (pen) provided.	1	5	5
<input type="checkbox"/> Accessing / working on underground services. <input type="checkbox"/> Gas.	➤ Technician(s). ❖ Explosive atmosphere. ❖ Oxygen deficient atmosphere. Catastrophic.	1. Calibrated Gas Detection Unit (GDU) provided. 2. Gas testing / monitoring - GDU usage / training provided on induction & at regular intervals – SA002 assessment. 3. Utility provider contact number available on request (supervisor).	2	5	10
<input type="checkbox"/> Accessing / working on underground services. <input type="checkbox"/> Sharps.	➤ Technician(s). ❖ Infection. Major illness.	1. Technician training on surveying area / needle stick injuries / discarded sharps / disease & infection - provided on induction & technician assessments (SA002). 2. Sharps hotline number provided to technician on induction & at regular intervals via TBT. 3. Regular refresher training on removal of chamber cover / surveying (sweep) work area via TBT / practical assessments (SA002).	2	4	8
<input type="checkbox"/> Accessing / working on underground services. <input type="checkbox"/> Venomous insects.	➤ Technician(s). ❖ Stung / bitten by venomous insect. Minor injury.	1. Training / instruction involving: Leaving undisturbed / gathering photographic evidence (insect) / seeking medical advice. 2. Refresher training.	1	2	2
<input type="checkbox"/> Accessing / working on underground services. <input type="checkbox"/> Rodents / Vermin.	➤ Technician(s). ❖ Infection. Major Illness.	1. Leptospirosis awareness training included on induction & SA002 assessment. 2. Leptospirosis card issued on induction. Instructed that card must be carried at all times. 3. TBT on disease /awareness provided at 1-year intervals.	1	5	5

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			L	C	R
<input type="checkbox"/> Accessing / working on underground services. <input type="checkbox"/> Exposed chamber.	➤ Technician(s). ➤ General public. ❖ Falling into chamber. Major injury.	1. Training provided on safe removal of chamber cover / guarding exposed chamber. Technician assessments on safety underground (SA002). 2. Gate guards / barriers provided. 3. Sandbags issued for adverse weather conditions i.e. wind. 4. Refresher training provided at regular intervals.	2	5	10
<input type="checkbox"/> Accessing / working on underground services. <input type="checkbox"/> Silted/flooded chamber.	➤ Technician(s). ❖ Infection. Major illness.	1. Training / instruction provided on safety underground assessment (SA002) i.e. identification of pure & polluted water. 2. Instruction provided on removing excess water from chamber (SA002). 3. Water test kit provided. 4. If chamber is 'silted' then advised to inform supervisor & request civils cleanse . 5. If flooded & volume is >5m ³ & is deemed as polluted, stop work & contact supervisor for tank disposal (Gully emptier).	1	4	4
<input type="checkbox"/> Accessing / working on underground services. <input type="checkbox"/> Lifting / removal of chamber cover.	➤ Technician(s). ❖ Inappropriate manual handling. Major musculoskeletal injury. Major crush injury - foot / hand.	1. Manual handling training provided (induction). 2. Training provided on safe removal of chamber cover (induction). Technician assessments on safety underground (SA002). 3. Correct chamber cover removal keys / associated equipment provided. 4. PPE provided e.g. steel toe capped footwear. 5. On site manual handling training. 6. Regular refresher training at 3 yearly intervals.	2	4	8
<input type="checkbox"/> Accessing / working on underground services. <input type="checkbox"/> Cable.	➤ Technician(s). ➤ General public. ❖ Slip / trip / fall over cable. ➤ Major injury.	1. Retain cable within working area (K8). 2. SLG provided e.g. gate guards / barriers. 3. Regular refresher training at 3 yearly intervals.	2	4	8
<input type="checkbox"/> Underground Chamber / Confined Space working <input type="checkbox"/> Gas <input type="checkbox"/> Unsecured chamber ladders <input type="checkbox"/> Flooding	➤ Technician ❖ Explosive / oxygen deficient atmosphere ❖ Falls from height ❖ Drowning Catastrophic Catastrophic injury Catastrophic	1. NC2 City & Guilds Medium/high risk confined space training 2. Refresher confined space training every 2 years 3. Correct confined space equipment available (tripod, winch, harness, escape set, walkie talkies) 4. Calibrated GDU provided 5. Gas testing/GDU usage training provided in induction and at regular intervals. 6. Utility provider phone number supplied to technician. 7. Permit to Work completed before all confined space work	2	5	10
			3	5	15
			2	5	10
<input type="checkbox"/> Utilising power tools. <input type="checkbox"/> Electricity.	➤ Technician(s). ❖ Contact with live conductors. Catastrophic.	1. Detection equipment provided / utilised. Training / assessments – operation of detection equipment (induction/accreditations). 2. (induction/accreditations). 3. Training / assessments - visual inspection / survey of area prior to drilling activities (induction/accreditations). 4. Refresher training provided at regular intervals.	1	5	5

□ Location / Activity ○ Hazard	➤ Who might be harmed, ❖ The Hazardous Event The Consequences	Controls	Risk Rating		
			L	C	R

<input type="checkbox"/> Gauging height of overhead power lines. <input type="checkbox"/> Electricity.	➤ Technician(s). ❖ Contact with live conductors. Catastrophic.	1. Technician assessments on safety overhead (SA001). 2. Refresher training provided at regular intervals. 3. Gloves IR provided & utilised as per instruction. 4. Telescopic rods provided & utilised as per instruction. (NOT to be used on HV power and not to be used when raining- Arcing) 5. Ultrasonic device used to measure HV cables. (As per training) 6. Send job back if HV cables are in the vicinity and Ultrasonic device not available.	1	5	5
<input type="checkbox"/> Accessing / working in vicinity of overhead services – Joint user poles. <input type="checkbox"/> Electricity.	➤ Technician(s). ❖ Contact with live conductors. Catastrophic.	1. Technician assessments on safety overhead (SA001) 2. Technician assessments on working on joint user poles & in proximity to overhead power (SA001). 3. Refresher training provided at regular intervals. 4. Gloves IR provided & utilised as per instruction. 5. Telescopic rods provided & utilised as per instruction.(NOT to be used on HV power and not to be used when raining- Arcing) 6. Insulated ladders provided (fibre glass). 7. MEWP (Mobile Elevating Work Platform) available if / when required. 8. Joint User Poles with High Voltage electricity attached are prohibited to work on as of May 2019 (Inc. climbing and Hoist usage)-Any encountered should be referred back to Openreach via a manager and an A1024 requested. 9. Hoist Working Site Diary and Working in the Vicinity of Power Risk Assessment to be completed prior to working on any Joint User Pole.	2	5	10
<input type="checkbox"/> Working activities in vicinity of general public. <input type="checkbox"/> Threats & violence.	➤ Technician(s). ❖ Assault. Catastrophic.	1. Threats & violence awareness included on induction. 2. TBT on threats & violence provided at 1-year intervals. 3. Company mobile telephone provided.	1	5	5

Review date	Carried out by:	Major Changes
01/10/2019	James Alderson	None
22/01/2020	Lee Meek	Addition of further controls for Accessing/Working in the vicinity of Overhead services-JUP and Operation of MEWP and A8 and A9 changed to A8/SA001 and A9/SA002 (Due to Smart Awards accreditation)
09/10/2020	Lee Meek	Added control on not using telescopic rods in the rain - Arcing
08/10/2021	James Alderson	None
03/11/2021	James Alderson	Reference to A8 & A9 removed.

Date of next review: 01/10/2022