

## Risk Assessment / Method Statement – Analysis (Testing).

### Project Scope:

**Location issues:** *Heavy public presence, weather conditions, transport.*

### Detail:

- Installed before work commences;
  - Infrastructure including chambers & ducting.
  - Joint box (footway or carriageway) containing network equipment e.g. Connectorised Block Terminal (CBT).
- Exchange – Activities involving Optical Distribution Frame (ODF).
- Network deactivated at headend prior to network trace on circuit commences (analysis).
- Fibre patch lead attached (spliced) to pre-installed fibre cable.
- Launch lead attached to fibre patch lead / Optical Time-domain Reflectometer (OTDR).
- Network trace analysis.

### 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 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.
2. Provide clear safe, alternative pedestrian routes if work area obstructs existing footway.
3. Erect ladders as per MAP procedure ensuring apex and base of the ladder are secured. Utilise MEWP (Mobile Elevating Work Platform) if required. (SA001)
4. Break seal & partially raise chamber cover. Complete initial atmosphere test prior to removing chamber cover (three beeps/20 seconds per beep).
5. Safely & correctly remove chamber cover in accordance with required standard. Contain open chamber, chamber cover & equipment within segregated area.
6. Complete thorough atmosphere tests & continuously monitor (SA002).
7. If water is present within chamber, perform water test to determine category e.g. pure water, sewage etc. If volume is <math><5\text{m}^3</math> & is not deemed as polluted then pump from chamber into carriageway drain/gutter or onto grass verge - continuously monitor. If volume is >math>5\text{m}^3</math> & is deemed as polluted, stop work & contact supervisor for tank disposal (Gully emptier). Reference 'test card' within water test kit.
8. Exchange – Activities involving Optical Distribution Frame (ODF).
9. Request network deactivation at headend prior to network trace on circuit commences (analysis).
10. Attach fibre patch lead (splice) to pre-installed fibre cable.
11. Attach launch lead to fibre patch lead / Optical Time-domain Reflectometer (OTDR).
12. Perform network trace analysis.
13. Measure / record any faults detected on fibre cable e.g. loss.
14. Test integrity of connections.
15. Replace chamber cover (SA002).
16. Disassemble WAH equipment.
17. Disassemble SLG e.g. remove barriers.

	Name	Title	Date
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<b>Reviewer</b>	Lee Meek	H & S Manager	06/12/2019
<b>Authorised by</b>	Matty Carlin	Director	14/12/2019

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

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

<ul style="list-style-type: none"> <li>● Location / Activity</li> <li>○ Hazard</li> </ul>	<ul style="list-style-type: none"> <li>➤ Who might be harmed,</li> <li>❖ The Hazardous Event</li> <li>⤴ The Consequences</li> </ul>	Controls	Risk Rating		
			L	C	R
<ul style="list-style-type: none"> <li>● Carriageway / removing equipment from vehicle.</li> <li>○ Traffic</li> </ul>	<ul style="list-style-type: none"> <li>➤ Technician(s).</li> <li>❖ Impact from passing vehicle.</li> <li>⤴ Catastrophic.</li> </ul>	<ol style="list-style-type: none"> <li>1. Vehicle to be parked with side door (access to cargo hold) adjacent to the footway.</li> <li>2. Mandatory high-visibility clothing to be worn at all times.</li> </ol>	1	5	5
<ul style="list-style-type: none"> <li>● Lifting operations e.g. carrying equipment / tooling.</li> <li>○ Manual handling</li> </ul>	<ul style="list-style-type: none"> <li>➤ Technician(s).</li> <li>❖ Inappropriate manual handling.</li> <li>⤴ Major musculoskeletal injury.</li> </ul>	<ol style="list-style-type: none"> <li>1. Manual handling training provided (induction).</li> <li>2. TBT on manual handling provided at 1-year intervals.</li> <li>3. Regular refresher training at 3 yearly intervals.</li> </ol>	2	4	8
<ul style="list-style-type: none"> <li>● Exchange.</li> <li>○ Optical systems / Lasers.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Technician(s).</li> <li>❖ Invisible laser radiation.</li> <li>⤴ Major Injury.</li> </ul>	<ol style="list-style-type: none"> <li>1. Training provided on fibre splicing activities/awareness (technician assessments).</li> <li>2. Laser rated equipment provided e.g. eye shields.</li> <li>3. Regular refresher training at 3 yearly intervals.</li> </ol>	2	4	8
<ul style="list-style-type: none"> <li>● Spicing activities.</li> <li>○ Fibre optic shards (glass).</li> </ul>	<ul style="list-style-type: none"> <li>➤ Technician(s).</li> <li>❖ Contact with shards (eyes/skin)</li> <li>⤴ Major injury.</li> </ul>	<ol style="list-style-type: none"> <li>1. Training provided on fibre splicing activities/awareness (technician assessments).</li> <li>2. PPE provided e.g. eye protection, hand protection (gloves).</li> <li>3. Sharps receptacle provided.</li> <li>4. Regular refresher training at 3 yearly intervals.</li> </ol>	1	4	4
<ul style="list-style-type: none"> <li>● Operation of MEWP (Mobile Elevating Work Platform).</li> <li>○ Working at height.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Technician(s).</li> <li>➤ General public.</li> <li>❖ Fall from height.</li> <li>⤴ Catastrophic.</li> </ul>	<ol style="list-style-type: none"> <li>1. Specific training on operating MEWP / working at height.</li> <li>2. Use of FPE (specific harness / lanyard).</li> <li>3. Work area &amp; vehicle secured with SLG below working at height activity.</li> <li>4. Refresher training at 3 yearly intervals.</li> <li>5. Regime of thorough examinations / inspections.</li> <li>6. Anemometer &amp; training provided on utilising equipment.</li> </ol>	2	5	10
<ul style="list-style-type: none"> <li>● Testing of equipment. Highest point – Apex.</li> <li>○ Working at height.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Technician(s).</li> <li>❖ Fall from height.</li> <li>⤴ Catastrophic.</li> </ul>	<ol style="list-style-type: none"> <li>1. Specific training on pole work / working at height.</li> <li>2. Work area secured with barriers below working at height activity.</li> <li>3. Use of FPE (harness / pole belt / lanyard).</li> <li>4. Regime of thorough examinations.</li> <li>5. Refresher training at 3 yearly intervals.</li> <li>6. Anemometer &amp; training provided on utilising equipment.</li> </ol>	2	5	10
<ul style="list-style-type: none"> <li>● Accessing / working on underground services.</li> <li>○ Electricity.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Technician(s).</li> <li>❖ Contact with live conductors.</li> <li>⤴ Catastrophic.</li> </ul>	<ol style="list-style-type: none"> <li>1. Approved / Insulated tooling.</li> <li>2. Voltage detection equipment (pen) provided.</li> </ol>	1	5	5

<ul style="list-style-type: none"> <li>● Location / Activity</li> <li>○ Hazard</li> </ul>	<ul style="list-style-type: none"> <li>➤ Who might be harmed,</li> <li>❖ The Hazardous Event</li> <li>⤴ The Consequences</li> </ul>	Controls	Risk Rating		
			L	C	R
<ul style="list-style-type: none"> <li>● Accessing / working on underground services.</li> <li>○ Gas.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Technician(s).</li> <li>❖ Explosive atmosphere.</li> <li>❖ Oxygen deficient atmosphere.</li> <li>⤴ Catastrophic.</li> </ul>	<ol style="list-style-type: none"> <li>1. Calibrated Gas Detection Unit (GDU) provided.</li> <li>2. Gas testing / monitoring - GDU usage / training provided on induction &amp; at regular intervals – SA002 assessment.</li> <li>3. Utility provider contact number available on request (supervisor).</li> </ol>	2	5	10
<ul style="list-style-type: none"> <li>● Accessing / working on underground services.</li> <li>○ Sharps.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Technician(s).</li> <li>❖ Infection.</li> <li>⤴ Major illness.</li> </ul>	<ol style="list-style-type: none"> <li>1. Technician training on surveying area / needle stick injuries / discarded sharps / disease &amp; infection - provided on induction &amp; technician assessments.</li> <li>2. Sharps hotline number provided to technician on induction &amp; at regular intervals via TBT.</li> <li>3. Regular refresher training on removal of chamber cover / surveying (sweep) work area via TBT / practical assessments (SA002).</li> </ol>	2	4	8
<ul style="list-style-type: none"> <li>● Accessing / working on underground services.</li> <li>○ Venomous insects.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Technician(s).</li> <li>❖ Stung / bitten by venomous insect.</li> <li>⤴ Minor injury.</li> </ul>	<ol style="list-style-type: none"> <li>1. Training / instruction involving: Leaving undisturbed / gathering photographic evidence (insect) / seeking medical advice.</li> <li>2. Refresher training.</li> </ol>	1	2	2
<ul style="list-style-type: none"> <li>● Accessing / working on underground services.</li> <li>○ Rodents / Vermin.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Technician(s).</li> <li>❖ Infection.</li> <li>⤴ Major Illness.</li> </ul>	<ol style="list-style-type: none"> <li>1. Leptospirosis awareness training included on induction &amp; SA002 assessment.</li> <li>2. Leptospirosis card issued on induction. Instructed that card must be carried at all times.</li> <li>3. TBT on disease /awareness provided at 1-year intervals.</li> </ol>	1	5	5
<ul style="list-style-type: none"> <li>● Accessing / working on underground services.</li> <li>○ Exposed chamber.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Technician(s).</li> <li>➤ General public.</li> <li>❖ Falling into chamber.</li> <li>⤴ Major injury.</li> </ul>	<ol style="list-style-type: none"> <li>1. Training provided on safe removal of chamber cover / guarding exposed chamber. Technician assessments on safety underground (SA002).</li> <li>2. Gate guards / barriers provided.</li> <li>3. Sandbags issued for adverse weather conditions i.e. wind.</li> <li>4. Refresher training provided at regular intervals.</li> </ol>	2	5	10
<ul style="list-style-type: none"> <li>● Accessing / working on underground services.</li> <li>○ Silted / flooded chamber.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Technician(s).</li> <li>❖ Infection.</li> <li>⤴ Major illness.</li> </ul>	<ol style="list-style-type: none"> <li>1. Training / instruction provided on safety underground assessment (SA002) i.e. identification of pure &amp; polluted water.</li> <li>2. Instruction provided on removing excess water from chamber (SA002).</li> <li>3. Water test kit provided.</li> <li>4. If chamber is 'silted' then advised to inform supervisor &amp; request civils cleanse .</li> <li>5. If flooded &amp; volume is &gt;5m<sup>3</sup> &amp; is deemed as polluted, stop work &amp; contact supervisor for tank disposal (Gully emptier).</li> </ol>	1	4	4

<ul style="list-style-type: none"> <li>● Location / Activity</li> <li>○ Hazard</li> </ul>	<ul style="list-style-type: none"> <li>➤ Who might be harmed,</li> <li>❖ The Hazardous Event</li> <li>⤴ The Consequences</li> </ul>	Controls	Risk Rating		
			L	C	R
<ul style="list-style-type: none"> <li>● Accessing / working on underground services.</li> <li>○ Lifting / removal of chamber cover.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Technician(s).</li> <li>❖ Inappropriate manual handling.</li> <li>⤴ Major musculoskeletal injury.</li> <li>⤴ Major crush injury - foot / hand.</li> </ul>	<ol style="list-style-type: none"> <li>1. Manual handling training provided (induction).</li> <li>2. Training provided on safe removal of chamber cover (induction). Technician assessments on safety underground (SA002).</li> <li>3. Correct chamber cover removal keys / associated equipment provided.</li> <li>4. PPE provided e.g. steel toe capped footwear.</li> <li>5. On site manual handling training.</li> <li>6. Regular refresher training at 3 yearly intervals.</li> </ol>	2	4	8
<ul style="list-style-type: none"> <li>● Accessing / working on underground services.</li> <li>○ Cable.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Technician(s).</li> <li>➤ General public.</li> <li>❖ Slip / trip / fall over cable.</li> <li>⤴ Major injury.</li> </ul>	<ol style="list-style-type: none"> <li>1. Retain cable within working area (K8).</li> <li>2. SLG provided e.g. gate guards / barriers.</li> <li>1. Regular refresher training at 3 yearly intervals.</li> </ol>	2	4	8
<ul style="list-style-type: none"> <li>● Accessing underground structure / confined space entry.</li> <li>○ Atmosphere.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Technician(s).</li> <li>❖ Explosive / oxygen deficient atmosphere.</li> <li>⤴ Catastrophic.</li> </ul>	<ol style="list-style-type: none"> <li>1. NC2 City &amp; Guilds Medium / high risk confined space training provided.</li> <li>2. Confined space refresher training every 2 years.</li> <li>3. Correct confined space equipment available / provided e.g. tripod, winch, harness, escape equipment.</li> <li>4. Calibrated Gas Detection Unit (GDU) provided.</li> <li>5. Gas testing / monitoring - GDU usage / training provided on induction &amp; at regular intervals.</li> <li>6. Utility provider contact number available on request (supervisor).</li> </ol>	2	5	10
<ul style="list-style-type: none"> <li>● Underground Chamber / Confined Space working</li> <li>○ Gas</li> <li>○ Unsecured chamber ladders</li> <li>○ Flooding</li> </ul>	<ul style="list-style-type: none"> <li>➤ Technician</li> <li>❖ Explosive / oxygen deficient atmosphere</li> <li>❖ Falls from height</li> <li>❖ Drowning</li> <li>⤴ Catastrophic</li> <li>⤴ Catastrophic injury</li> <li>⤴ Catastrophic</li> </ul>	<ol style="list-style-type: none"> <li>1. NC2 City &amp; Guilds Medium/high risk confined space training</li> <li>2. Refresher confined space training every 2 years</li> <li>3. Correct confined space equipment available (tripod, winch, harness, escape set, walkie talkies)</li> <li>4. Calibrated GDU provided</li> <li>5. Gas testing/GDU usage training provided in induction and at regular intervals.</li> <li>6. Utility provider phone number supplied to technician.</li> <li>7. Permit to Work completed before all confined space work</li> </ol>	2	5	10
			3	5	15
			2	5	10
<ul style="list-style-type: none"> <li>● Working activities in vicinity of general public.</li> <li>○ Threats &amp; violence.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Technician(s).</li> <li>❖ Assault.</li> <li>⤴ Catastrophic.</li> </ul>	<ol style="list-style-type: none"> <li>1. Threats &amp; violence awareness included on induction.</li> <li>2. TBT on threats &amp; violence provided at 1-year intervals.</li> <li>3. Company mobile telephone provided.</li> </ol>	1	5	5

<ul style="list-style-type: none"> <li>• Location / Activity</li> <li>○ Hazard</li> </ul>	<ul style="list-style-type: none"> <li>➤ Who might be harmed,</li> <li>❖ The Hazardous Event</li> <li>⤴ The Consequences</li> </ul>	Controls	Risk Rating		
			L	C	R

Review date	Carried out by:	Major Changes
01/10/2019	Lee Meek	None
09/10/2020	Lee Meek	All A9 references changed to SA002 and A8 references changed to SA001.

Date of next review: 01/10/2021