

# Utility Strike Avoidance Group



# PROTOCOL FOR THE MANAGEMENT OF UNDERGROUND SERVICES

December 2018

Stage	Actions	Responsible
Concept and Feasibility	Appoint competent adequately resourced designers and/or principal designer.	Client
	Competent designers and principal designer are to be in a position to determine the: <ul style="list-style-type: none"> <li>• Impact of their designs on the utility apparatus</li> <li>• Best available technique for locating and protecting underground services, and</li> <li>• Statutory obligations and best practice guidance documents requirements</li> </ul>	Designer / Principal Designer
Design and Planning	Contact the utility owner to request relevant service plans which establish the location of their buried assets.	Designer / Principal Designer
	Provide the designer / principal designer with up to date, legible plans that show: <ul style="list-style-type: none"> <li>• Recorded location, configuration line and depth of known services in the specified areas</li> <li>• The extent and location of particularly vulnerable services, and</li> <li>• Any other additional information that is relevant to the services</li> </ul>	Asset Owner

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	Positively identify underground services in line with HSG47 'Avoiding Underground Services' and BSI PAS 128 'Specification for Underground Utility Detection, Verification and Location. Bear in mind that the information provided in plans are indicative only. Additional steps should be taken to identify services e.g., digging trial holes.	Designer / Principal Designer
	Attend site to give advice / assistance if after conducting site investigations the designer / planner cannot locate the services or discovers that they are embedded in concrete.	Asset Owner
	Prior to finalising the design / contract drawings, undertake a risk assessment and confirm that any potential impact on underground services has been considered.	Designer / Principal Designer / Asset Owner
Tender	<p>Provide the contractor with up to date, readable plans that are accurate and as relevant as possible, which show the:</p> <ul style="list-style-type: none"> <li>• Recorded location, configuration line and depth of known services in the specified areas</li> <li>• The extent and location of particularly vulnerable services, and</li> <li>• Any other additional information that is relevant to the services</li> </ul>	Client

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	<p>Ensure that details are included in the contract documentation to allow the contractor to price for:</p> <ul style="list-style-type: none"> <li>• Work at, near to, or with services</li> <li>• Any additional survey information/ investigations including, if necessary, the digging of trial holes to establish exact locations of underground services prior to excavation.</li> </ul>	Client
	<p>Evaluate tender submissions to ensure that systems are in place to provide competent people and adequate resources for safe working at or near underground services, including service location training, digging and reinstating practices and the recording of services.</p>	Client
Construction	<p>Check with the asset owner that the plans and information provided have not changed. This includes both the underground assets and service depths.</p>	Contractor
	<p>Competent operatives and their managers/supervisors should be able to:</p> <ul style="list-style-type: none"> <li>• Undertake a suitable and sufficient risk assessment for the works</li> <li>• Use, and maintain service detection equipment</li> <li>• Read and interpret plans, drawings, maps and guidance documents</li> <li>• Employ safe digging techniques (including the selection and use of mobile plant)</li> <li>• Understand how to mark out on site and record service information, and</li> <li>• Implement first response and emergency response arrangements</li> </ul>	Contractor

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	<p>Method statements for working near underground services to include but not be limited to:</p> <ul style="list-style-type: none"> <li>• Description and location of the works</li> <li>• Roles and responsibilities (including supervision arrangements)</li> <li>• Identify and need to request isolation of live electricity cables from asset owner</li> <li>• Sequence of work activities (including specific site rules and any restrictions)</li> <li>• Appropriate operational safety controls (including safe digging practices, resources and emergency response arrangements)</li> <li>• Competence level of named operatives and their supervisors/managers</li> </ul>	Contractor
	Supervisors / managers and operatives to hold the appropriate Streetworks certificates	Contractor
	Carry out additional investigation, which should include the digging of trial holes (using suitable hand tools or vacuum excavation) as necessary to establish exact locations of underground services prior to mechanical excavation.	Contractor
	Any changes to the design must be reflected in the contract drawings provided to the contractors.	Designer

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	Attend site to give advice / assistance if after conducting site investigations the contractor cannot locate the service or discovers that they are embedded in concrete.	Asset Owner
	Use cable and pipe detection equipment that has been maintained and calibrated in accordance with the manufacturer's instructions.	Contractor
Commissioning and Handover	Provide the client with details of locations, type, configuration, line and depth of any services located, altered or installed during construction.	Contractor
	Provide asset owner with details of any 'as laid' services information or any services located or altered during construction, including any realignment of carriageway or changes to geometry / ground levels.	Client
	Update records with new locations, type, configuration, line and depth (including special provisions and warnings) or any services located or altered during construction. Guidance is available within PAS 256 'Capturing, Recording, Maintaining and Sharing of Location Information and Data' Code of Practice, which is designed to improve the accuracy and availability of records of buried assets.	Asset Owner

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### Notes

- The CLIENT could be a developer, statutory authority, asset owner or other entity.
- DESIGNERS include anyone who prepares designs for construction work.
- CONTRACTOR includes Principal Contractor and sub-contractors.
- 'Underground Services' means all pipes, cables and equipment associated with electricity, gas, water, sewerage, telecommunications and any associated connections and apparatus.
- This document does not cover trenchless technology; seek further guidance.