

# COSVR372 – SQA Unit Code HL86 04

## Identify and mark the location of utilities apparatus and sub-structures



### Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components, tools and equipment, surveying, identifying and placing surface markings for utilities apparatus and sub-structures

This standard is for people working in the occupational area of road building and maintenance and construction and civil engineering operations, and can be used by operatives, supervisors and managers

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### Identify and mark the location of utilities apparatus and sub-structures

#### Performance criteria

- You must be able to:*
- P1 interpret the given information relating to the work and resources to confirm its relevance
  - P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
  - P3 select the required quantity and quality of resources for the methods of work
  - P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
  - P5 comply with the given contract information to carry out the work efficiently to the required specification
  - P6 complete the work within the allocated time, in accordance with the programme of work

## Identify and mark the location of utilities apparatus and sub-structures

### Knowledge and understanding

*You need to know and understand:*

#### Performance Criteria 1

##### Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate **information** and unsuitable **resources**, and how they are implemented
- K2 the types of **information**, their source and how they are interpreted
- K3 the organisational procedures to solve **problems** with the **information** and why it is important they are followed

#### Performance Criteria 2

##### Safe work practices

*You need to know and understand:*

- K4 the level of understanding operatives must have of **information** for relevant, current **legislation and official guidance** and how it is applied
- K5 the types of **fire extinguishers** and how and when they are used
- K6 how **emergencies** should be responded to and who should respond
- K7 the organisational **security procedures** for tools, equipment and personal belongings
- K8 what the accident reporting procedures are and who is responsible for making the report
- K9 why, when and how **health and safety control equipment** should be used
- K10 how to comply with environmentally responsible work practices to meet current **legislation and official guidance**

#### Performance Criteria 3

##### Selection of resources

*You need to know and understand:*

- K11 the characteristics, quality, uses, sustainability, limitations and defects associated with the **resources** and how defects should be rectified
- K12 how the **resources** should be used and how any **problems** associated with the **resources** are reported
- K13 the organisational procedures to select **resources**, why they have been developed and how they are used
- K14 the **hazards** associated with the **resources** and **methods of work** and how they are overcome

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#### Performance Criteria 4

##### Minimise the risk of damage

*You need to know and understand:*

K15 how to **protect work** from damage and the purpose of protection

K16 why **disposal of waste** should be carried out safely and how it is achieved

#### Performance Criteria 5

##### Meet the contract specification

*You need to know and understand:*

K17 how **methods of work**, to meet the specification, are carried out and **problems** reported

K18 how **maintenance** of tools and equipment is carried out

#### Performance Criteria 6

##### Allocated time

*You need to know and understand:*

K19 what the **programme** is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

### Additional Information

#### Scope/range related to performance criteria

##### Performance Criteria 1

- 1 interpretation of drawings, specifications, schedules, risk assessments, method statements, survey and utility company information and manufacturers' information related to the work to be carried out

##### Performance Criteria 2

- 2 avoidance of risk by complying with the given information relating to the following
  - 2.1 methods of work
  - 2.2 safe use of health and safety control equipment
  - 2.3 safe use, storage and handling of materials, tools and equipment
  - 2.4 specific risks to health
  - 2.5 others affected by the work

##### Performance Criteria 3

- 3 selection of resources associated with own work
  - 3.1 materials and components
  - 3.2 tools and equipment
  - 3.3 electronic location instruments

##### Performance Criteria 4

- 4 protection of the work and its surrounding area from damage
- 5 maintain a clear and tidy work space
- 6 disposal of waste in accordance with current legislation

##### Performance Criteria 5

- 7 demonstration of work skills to measure, locate, identify, mark out, position, protect and secure
- 8 use and maintain hand tools, power tools, ancillary equipment and electronic instruments
- 9 survey, identify and mark the location of utilities apparatus and sub-structures to given working instructions

##### Performance Criteria 6

- 10 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

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### Scope/range related to knowledge and understanding

#### **Disposal of waste**

- 1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

#### **Emergencies**

- 2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with
  - 2.1 fires, spillages, injuries, damage to utilities apparatus and sub-structures
  - 2.2 emergencies relating to occupational activities

#### **Fire extinguishers**

- 3 water, CO<sub>2</sub>, foam, powder and their uses

#### **Hazards**

- 4 those identified by risk assessment, methods of work, manufacturers' technical information, statutory regulations and official guidance

#### **Health and safety control equipment**

- 5 identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment
  - 5.1 collective protective measures
  - 5.2 personal protective equipment (PPE)
  - 5.3 respiratory protective equipment (RPE)

#### **Information**

- 6 drawings, specifications, schedules, risk assessments, method statements, organisational and manufacturers' information, verbal, written and graphical instructions, current regulations and official guidance governing utilities

#### **Legislation and official guidance**

- 7 this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and storage of materials by manual handling and mechanical lifting

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#### **Maintenance**

- 8 operative care of hand tools, power tools, ancillary equipment and electronic instruments

#### **Methods of work**

- 9 application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to:
  - 9.1 confirm the area and location of work, the operations, safety and security requirements including temporary traffic management and immediate area protection
  - 9.2 ensure electronic equipment is calibrated
  - 9.3 conform to agreed specification and local utility providers requirements
  - 9.4 identify utilities apparatus and sub-structures by electronic locators and visually
  - 9.5 confirm the type of service, including: gas, fuel, electric, communication, water, sewage
  - 9.6 work around street furniture and ironwork
  - 9.7 recognise identification markers for utility types
  - 9.8 confirm structures (foundations, inspection chambers, joint and junction boxes)
  - 9.9 confirm the impact of the natural environment (tree roots, watercourses)
  - 9.10 mark the position of utilities apparatus and sub-structures
  - 9.11 return infrastructure to operational status
  - 9.12 recognise and determine when specialist skills and knowledge are required and report accordingly
  - 9.13 use hand tools, power tools and equipment
  - 9.14 work at height
- 10 team work and communication
- 11 needs of other occupations associated with identifying and marking the location of utilities apparatus and sub-structures

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#### **Problems**

- 12 those arising from information, resources and methods of work
  - 12.1 own authority to rectify
  - 12.2 organisational reporting procedures

#### **Programme**

- 13 types of productivity targets and time scales
- 14 how times are estimated
- 15 organisational procedures for reporting circumstances which will affect the work programme

#### **Protect work**

- 16 protect work against damage from general workplace activities, other occupations and adverse weather conditions

#### **Resources**

- 17 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and specialist:
  - 17.1 electronic location instruments
  - 17.2 marking materials and equipment
  - 17.3 hand tools, power tools and equipment
  - 17.4 ancillary equipment
- 18 identify by calculation, quantity, length and area associated with the method and procedure to identify and mark the location of utilities apparatus and sub-structures

#### **Security procedures**

- 19 site, workplace, company and operative



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