
Overview

This unit is about making preparations to carry out a survey, carrying out the survey in the most appropriate way, and collecting, checking and verifying the data and presenting it in a suitable format. You will need to confirm the specification and methods ensuring that all permissions have been obtained and suitable equipment is available. You will also need to check the equipment, brief the people involved and ensure that all arrangements are in place and conform to specified requirements.

You will need to carry out the survey in accordance with agreed procedures, consulting others where relevant and implement changes to allow for changing circumstances that may arise. You will also need to record the data and ensure that any restoration needed is carried out.

You will need to collect, check and verify the data, present it including the provision of any commentary in a suitable format and also advise people how to interpret the data.

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Prepare for, collect, analyse and present survey data in construction

Performance criteria

Prepare to carry out surveys

You must be able to:

- P1 confirm that the survey specification and the survey method statement is accurate before starting the work
- P2 check and confirm, before starting work, that people who will be affected have given their permission
- P3 arrange for suitable equipment to be brought to the site and kept safely and securely
- P4 check equipment so that it is accurate before it is used for taking measurements
- P5 brief the people who will be involved in the survey about survey and safety arrangements
- P6 check and confirm that signs, arrangements for personal safety, equipment and site access conform to good practice, legislation and regulation

Carry out surveys

You must be able to:

- P7 conduct the survey in a way which maintains the level of accuracy required, balances content and cost and keeps disruption to a minimum
- P8 conform to safe working practices when on the site
- P9 consult with experts when specialist information is needed which is relevant to the survey
- P10 set appropriate horizontal and vertical controls and record them
- P11 take accurate observations and measurements using valid methods
- P12 change work procedures and practices to allow for different circumstances and conditions
- P13 record survey data clearly and accurately and store it securely for later analysis
- P14 restore areas which have been opened up for access so that subsequent processes can take place

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Present survey data

- You must be able to:*
- P15 collect together recorded survey data to allow an accurate analysis to be made
 - P16 check and verify the survey data to maintain accuracy and integrity
 - P17 present the data, commentary and any support information accurately, clearly and in a format which is suitable for those who need to use it
 - P18 advise people who will be using the survey data on how to interpret it and highlight the scope and limitations on its use

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Knowledge and understanding

You need to know and understand:

Prepare to carry out surveys

- K1 how to confirm that the survey method statement is accurate before starting the work (application)
- K2 how to check and confirm, before starting work, that people who will be affected have given their permission (application)
- K3 how to arrange for suitable equipment to be brought to the site and kept safely and securely (application)
- K4 how to check equipment (application)
- K5 how to brief the people who will be involved in the survey about survey and safety arrangements (application)
- K6 how to check and confirm that signs, arrangements for personal safety, equipment and site access conform to good practice, legislation and regulations (application)

Carry out surveys

You need to know and understand:

- K7 how to conduct the survey (application)
- K8 how to conform to safe working practices when on the site (application)
- K9 how to consult with experts when specialist information is needed which is relevant to the survey (application)
- K10 how to set appropriate horizontal and vertical controls and record them (application)
- K11 how to take accurate observations (application)
- K12 how to change work procedures and practices to allow for different circumstances and conditions (application)
- K13 how to record and store survey data (application)
- K14 how to restore areas which have been opened up for access so that subsequent processes can take place (application)

Present survey data

You need to know and understand:

- K15 how to collect together recorded survey data to allow an accurate analysis to be made (application)
- K16 how to check and verify the survey data to maintain accuracy and integrity (application)
- K17 how to present the data, the commentary and any support information

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accurately, clearly and in a format which is suitable for those who need to use it (application)

- K18 how and why to advise people who will be using the survey data on how to interpret it and highlight the scope and limitations on its use (synthesis)

Additional Information

Scope/range

Prepare to carry out surveys

1. Survey - type:

- 1.1. land
- 1.2. building
- 1.3. engineering
- 1.4. environmental

2. Survey - method:

- 2.1. environmental
- 2.2. visual
- 2.3. approximate measured
- 2.4. detailed measurement of all specified feature
- 2.5. graphic
- 2.6. instrumental
- 2.7. method statement

3. Permission from:

- 3.1. client
- 3.2. site owner and occupiers
- 3.3. adjoining owners and occupiers
- 3.4. notifiable authorities

4. Equipment:

- 4.1. mechanical
- 4.2. optical
- 4.3. electronic

5. Safety:

- 5.1. personal safety
- 5.2. equipment and clothing
- 5.3. safe use of access equipment
- 5.4. health and safety practice and regulations
- 5.5. industry codes of practice
- 5.6. regulations applying to the survey site
- 5.7. signage

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Carry out surveys

6. Survey - type:

- 6.1. land
- 6.2. building
- 6.3. engineering
- 6.4. environmental

7. Survey - method:

- 7.1. visual
- 7.2. approximate measured
- 7.3. detailed measurement of all specified feature
- 7.4. graphic
- 7.5. instrumental
- 7.6. method statement

8. Safe working practices:

- 8.1. personal safety
- 8.2. equipment and clothing
- 8.3. safe use of access equipment
- 8.4. health and safety practice and regulations
- 8.5. industry codes of practice
- 8.6. regulations applying to the survey site
- 8.7. signage
- 8.8. site access to working areas

9. Circumstances and conditions:

- 9.1. topography
- 9.2. water
- 9.3. obstacles
- 9.4. climatic variation
- 9.5. live conditions (e.g. buildings and sites in use, roads, railways, runways)
- 9.6. planned circumstances
- 9.7. emergency circumstances

Present survey data

10. Survey - method:

- 10.1. visual
- 10.2. approximate measured
- 10.3. detailed measurement of all specified features
- 10.4. graphic
- 10.5. instrumental
- 10.6. method statement

11. Present:

- 11.1. orally
- 11.2. in writing
- 11.3. graphically
- 11.4. electronically

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