
Overview

This unit is about the application of Building Information Modelling to identify hazards and assess risks.

Performance criteria

You must be able to:

- P1 undertake organisational **risk management** processes
- P2 review and interpret **existing information** relating to potential **hazards**
- P3 **identify** the **hazards** arising from construction products and processes that need to be assessed
- P4 obtain accurate information on any **factors** relating to the **hazards**
- P5 **identify** the significance of the **hazards**
- P6 **assess** the significant **hazards** to identify the residual **risks** and apply the **principles of prevention and protection**
- P7 check that resulting information on significant residual **risks** is provided to the appropriate people

Knowledge and understanding

You need to know and understand:

- K1 how and why to undertake organisational **risk management** processes (evaluation)
- K2 how and why to review and interpret **existing information** relating to potential **hazards** (analysis)
- K3 what to **identify** as the **hazards** arising from construction products and processes that need to be assessed (understanding)
- K4 how to obtain accurate information on any **factors** relating to the **hazards** (application)
- K5 how and why to **identify** as the significance of the **hazards** (synthesis)
- K6 how and why to **assess** the significant **hazards** to identify the residual **risks** (analysis)
- K7 how to apply the **principles of prevention and protection** (application)
- K8 how to check that information on significant residual **risks** is provided to the appropriate people (application)

Scope/range

- 1 Risk Management:
 - 1.1 hazard identification
 - 1.2 risk assessment
 - 1.3 prevention and protection
- 2 Existing information:
 - 2.1 residual risk log
 - 2.2 Health and Safety Plan
 - 2.3 design information (models, documents, drawings, graphical and non-graphical digital data files)
- 3 Identify:
 - 3.1 examine design documentation
 - 3.2 examine Building Information Model
- 4 Hazards:
 - 4.1 falls from height
 - 4.2 slips, trips and falls (same level)
 - 4.3 hit by falling or moving objects
 - 4.4 manual handling
 - 4.5 noise and vibrations
 - 4.6 power sources
 - 4.7 hazardous substances
 - 4.8 trapped by something collapsing or overturning
 - 4.9 confined spaces
 - 4.10 fire
 - 4.11 lack of/breaches of security
 - 4.12 water
 - 4.13 moving vehicles
 - 4.14 operating equipment
 - 4.15 sector or context specific
 - 4.16 display screen equipment
 - 4.17 materials & their failure points
- 5 Factors:
 - 5.1 injure people
 - 5.2 cause ill health

Scope/range

- 5.3 damage property
- 5.4 adversely affect the man-made and built environment
- 5.5 cost
- 6 Assess:
 - 6.1 likelihood of occurrence;
 - 6.2 severity of harm or damage which may be incurred
- 7 Risks:
 - 7.1 high
 - 7.2 medium
 - 7.3 low
- 8 Principles of prevention and protection:
 - 8.1 eliminate
 - 8.2 control at source
 - 8.3 manage
 - 8.4 personal protection equipment
 - 8.5 communal/collective protection

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Identify hazards and assess risks in a Building Information Modelling environment



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Relevant occupations Managers in construction; civil engineers; architects; quantity surveyors; building and civil engineering technicians; architectural technologists and town planning technicians; draughtspersons; graphic designers; property, housing and land; town planners managers; chartered surveyors (not quantity surveyors) managers; estimators, valuers and assessors managers

Suite Building Information Modelling

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