# Cavity Wall Extraction

# National Occupational Standards

# Final

## Cavity Wall Extraction Functional Map

This project will review the National Occupational Standards for specific job roles and functions associated with Cavity Wall Extraction. The table below covers all functions involved.

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| --- | --- | --- | --- |
| **Key area** | **Key activity** | **REF** | **Standard title** |
| **All areas** | **Conforming to General Health, Safety and Welfare in the Workplace** | GQACWE1 | Health, safety and welfare in the workplace |
| **Conforming to Productive Working Practices in the Workplace** | GQACWE2 | Conforming to productive working practices in the workplace |
| **Moving, Handling and Storing Resources in the Workplace** | GQACWE3 | Move, handle and store resources |
| **Cavity Wall Clearance** | **Cavity wall clearance in the workplace** | GQACWE4 | Cavity wall clearance in the workplace |
| **Cavity Extraction Specialist Surveyor/Inspector** | **Surveying/Inspection of Cavity wall clearance in the workplace** | GQACWE5 | Survey/inspect cavity wall clearance in the workplace |
| **Access**  | **Erecting and Dismantling Access/Working Platforms in the Workplace** | GQACWE6 | Erecting and dismantling access/working platforms in the workplace |

## GQACWE1 Health, safety and welfare in the workplace

### Overview

This standard covers the skills and knowledge needed to work safely in the construction industry, in accordance with organisation guidance, legislation and statutory requirements. You must understand safety and warning notices, potential hazards, risk assessments, health risks and the recording and reporting of all health and safety related matters.

Knowledge of protective and health and safety control equipment, accident and emergency procedures including evacuation and types of fire extinguishers are also required. This knowledge covers the safety of the general public as well as site personnel and resources. All work carried out must also comply with legislation that covers the disposal of waste or consumable items.

### Outcomes

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| --- | --- |
| **Performance Criteria***You must be able to:* | **Knowledge & Understanding***You need to know and understand:* |
| 1. comply with information from workplace inductions and any health, safety and welfare briefings attended relevant to the occupational area
2. comply with statutory requirements, safety notices and warning notices displayed within the workplace and/or on equipment
3. report any hazards created by changing circumstances in the workplace following organisational procedures
4. interpret and comply with instructions to maintain safe systems of work and quality working practices
5. contribute to discussions by offering/providing feedback relating to health, safety and welfare
6. maintain workplace welfare facilities following workplace procedures
7. store health and safety control equipment following given instructions
8. dispose of waste and consumable items following legislation
9. show personal responsibility for general workplace health, safety and welfare
10. provide appropriate support for security arrangements following approved procedures:
* during the working day
* on completion of the day’s work
* for unauthorised personnel (other operatives and the general public)
* for theft
 | 1. relevant health, safety and welfare legislation, notices and warning signs
2. how to comply with control measures identified by risk assessments and safe systems of work
3. typical hazards associated with the work environment and occupational area in relation to:
* resources, substances, asbestos, equipment, obstructions, storage, services and work activities
1. current health and safety executive top ten safety risks
2. current health and safety executive top five health risks
3. how changing circumstances in the workplace could cause hazards
4. methods used for reporting changed circumstances, hazards and incidents in the workplace
5. health, safety and welfare organisational policies and procedures for:
* dealing with accidents and emergencies associated with the work and environment
* methods of receiving or sourcing information
* reporting
* stopping work
* evacuation
* fire risks and safe exit procedures
* consultation and feedback
1. types of relevant fire extinguishers
2. how and when different types of fire extinguishers are used
3. how personal behaviour demonstrates responsibility for
	* recognising when to stop work in the face of serious and imminent danger to self and/or others
	* contributing to discussions and providing feedback
	* reporting changed circumstances and incidents in the workplace
	* complying with the environmental requirements of the workplace
4. how behaviour and actions of individuals could affect others within the workplace
5. how security arrangements are implemented in relation to the workplace, the general public, site personnel and resources
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## GQACWE2 Conforming to productive working practices in the workplace

### Overview

This standard covers the skills and knowledge needed to communicate with colleagues, management and customers to plan, implement and record information in the construction working environment. This includes the use and completion of documentation in line with organisational guidelines, meeting deadlines and specifications while maintaining effective working relationships.

You will also have to understand the importance of working relationships have on productive working and how to ensure equality and diversity principles are applied when working and communicating with others. You must also understand how work activities can make a positive contribution to the environment, including knowledge of low and zero carbon requirements.

### Outcomes

|  |  |
| --- | --- |
| **Performance Criteria***You must be able to:* | **Knowledge & Understanding***You need to know and understand:* |
| 1. communicate in an appropriate manner with line management, colleagues and/or customers to ensure that work is carried out productively
2. plan the sequence of work interpreting relevant information and using appropriate resources following organisational procedures to ensure work is completed productively
3. complete relevant documentation required by the organisation
4. carry out work productively, to the agreed specification, in conjunction with line management, colleagues, customers and/or other relevant people involved in the work to maintain good working relationships
5. apply the principles of equality and diversity and respect the needs of individuals when communicating and working with others
 | 1. different methods of communicating with line management, colleagues and customers
2. how to use different methods of communication to ensure work carried out is productive
3. how to ensure work is planned and carried out productively, in relation to:
* using resources for own and other’s work requirements
* allocating appropriate work to employees
* organising the work sequence
* reducing carbon emissions
1. how to contribute to zero/low carbon work outcomes within the built environment
2. how to complete and maintain documentation in relation to:
* job cards
* worksheets
* material/resource lists
* time sheets
1. reasons for ensuring documentation is completed clearly and within given timescales
2. how to maintain good working relationships, in relation to:

– individuals– customer and operative– operative and line management– own and other occupations1. why it is important to work effectively with line management, colleagues and customers
2. how working relationships could influence productive working
3. how to apply principles of equality and diversity when communicating and working with others
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## GQACWE3 Move, handle and store resources

### Overview

This standard covers the skills and knowledge needed to move, handle and store construction related materials, e.g. sheet material, loose material, bagged or wrapped material, fragile material, tools and equipment, components or liquids in accordance with safe working practices, legislation and organisational guidance on safety and security. You must have knowledge of safe use of lifting and handling aids, containers and fixing, holding and securing systems and how to dispose of waste and packaging in accordance with legislation.

All work must be carried out following with safe working practices, minimising risk of damage to the materials and surrounding area. You must understand their responsibilities and the hazards associated with this type of work including how the needs of other occupations must be considered when moving resources, the accident and emergency procedures, and the different types and purposes of fire extinguishers. You must understand the types of problems that can occur when carrying out this type of work and the organisational procedures for dealing with them.

### Outcomes

|  |  |
| --- | --- |
| **Performance Criteria***You must be able to:* | **Knowledge & Understanding***You need to know and understand:* |
| 1. interpret given information relating to moving, handling and storing resources, relevant to the given occupation
2. interpret the given information relating to the use and storage of lifting aids and equipment
3. use health and safety control equipment safely when moving, handling and/or storing resources following legislation and organisational requirements
4. use lifting aids safely as appropriate to the work
5. protect the environment following safe working practices appropriate to the work
6. protect occupational resources and surrounding areas from damage following safe working practices and organisational procedures
7. dispose of waste and packaging following legislation
8. maintain clean workspaces when moving, handling or storing resources
9. complete work within the allocated time
10. move, handle and store occupational resources to meet organisational requirements including:
* positioning,
* securing
* using lifting aids and
* kinetic lifting techniques
1. move, handle and/or store occupational resources to meet product information and organisational requirements relating to:
	* sheet material
	* loose material
	* bagged or wrapped material
	* fragile material
	* tools and equipment
	* components
	* liquids
 | 1. different types of technical, product and regulatory information, their source and how they are interpreted
2. how to obtain information relating to using and storing lifting aids and equipment
3. your responsibilities under current legislation and official guidance whilst working:
* in the workplace, in confined spaces, below ground level, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting
1. organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative
2. accident reporting procedures and who is responsible for making reports
3. appropriate types of fire extinguishers relevant to the work
4. how and when the different types of fire extinguishers are used
5. why and when health and safety control equipment should be used, relating to moving, handling and/or storing resources, and the types, purpose and limitations of each type, the work situation, occupational use and the general work environment, in relation to:

– collective protective measures– personal protective equipment (PPE)– respiratory protective1. how the health and safety control equipment should be used
2. how emergencies should be responded to and personal skills when involved with fires, spillages, injuries and other task-related hazards
3. relevant resources to be moved, handled and/or stored, associated with own work
4. characteristics, quality, uses, sustainability, limitations and defects associated with the occupational resources in relation to:

– lifting and handling aids– container(s)– fixing, holding and securing systems.1. how resources should be handled and how any problems associated with the resources are reported
2. why organisational procedures have been developed and how they are used for the selection of required resources
3. potential hazards associated with resources and methods of work
4. how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions
5. how disposal of waste should be carried out
6. purpose of work programmes and why deadlines should be kept in relation to:
	* progress charts, timetables and estimated times
	* organisational procedures for reporting circumstances which will affect the work programme
7. how to apply safe work practices, follow procedures, report problems and establish the authority needed to rectify them when moving, handling and/or storing occupational resources.
8. the needs of other occupations when moving, handling and/or storing resources.
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## GQACWE4 Cavity wall clearance in the workplace

### Overview

This standard covers the skills and knowledge needed to carry out cavity wall clearance operations to create a clear cavity that can be reinsulated or insulated if the system has been used to remove debris only. You must also prove knowledge and competence to create a clear cavity to be able to facilitate External Rendering and External Wall Insulation complying with current Building Regulations. All work must be completed following safe working practices, relevant legislation, and comply with contract information and the allocated timescales

### Outcomes

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| --- | --- |
| **Performance Criteria***You must be able to:* | **Knowledge & Understanding***You need to know and understand:* |
| 1. interpret and extract relevant information from drawings, specifications, schedules, risk assessments and method statements
2. comply with information and/or instructions derived from risk assessments and method statements
3. use health and safety control equipment and access equipment safely to carry out the activity in accordance with legislation and organisational requirements during cavity wall clearance
4. select resources required including materials, components, fixings, tools and equipment to meet organisational requirements
5. protect the work and surrounding areas from damage
6. minimise damage and maintain clean workspaces
7. dispose of waste, e.g. fibrous, insulation following legislation
8. complete work within the allocated time
9. seal around windows, ducts, pipes and other apertures inside the property to prevent dust from entering inside
10. prepare and carry out cavity wall clearance operations according to working instructions/method statement
11. clear cavity walls to meet organisational requirements including:
	* measure
	* mark out
	* calculate
	* cut
	* fit
	* position
	* secure
12. check inside properties to ensure no dust or material has been dispersed
13. check results meet organisational requirements with equipment and capture images for evidence
14. repeat process if required to ensure complete removal of debris
15. fill holes and make good with matching and suitable materials to comply with job specification and contract requirements
16. complete post installation checks to given work instructions
17. store materials, tools and equipment used safely during cavity wall clearance
 | 1. organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented
2. different types of information available, their source and how they are interpreted in relation to:
	* drawings
	* specifications
	* schedules
	* manufacturers’ information
	* regulations governing buildings
3. your responsibilities under current legislation and official guidance whilst working:
	* in the workplace
	* below ground level
	* at height, with tools and equipment
	* with materials and substances
	* with movement/storage of materials
	* manual handling and mechanical lifting
4. organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative
5. accident reporting procedures and who is responsible for making reports
6. why and when health and safety control equipment should be used, the types, purpose and limitations of each type, the work situation and general work environment, in relation to:
	* collective protective measures
	* personal protective equipment (PPE)
	* respiratory protective equipment (RPE)
	* local exhaust ventilation (LEV)
7. how relevant health and safety control equipment should be used
8. how emergencies should be responded to and personal skills when involved with fires, spillages, injuries and other task related hazards
9. characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to:
	* protective sheeting
	* warning signs
	* temporary barriers
	* airway sleeves
	* cavity barriers
	* cement
	* insulation
	* hand and/or powered tools
	* installation equipment
10. how resources should be used and how problems associated with resources are reported
11. why organisational procedures have been developed and how they are used for the selection of required resources
12. potential hazards associated with resources and method of work
13. how to calculate quantity, area for cavity wall clearance
14. how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions
15. purpose of work programmes and why deadlines should be kept in relation to:
	* types of progress charts, timetables and estimated times
	* organisational procedures for reporting circumstances which will affect work programmes
16. how to apply safe work practices, follow procedures, report problems and establish the authority needed to rectify them, to:
	* complete post extraction checks
	* check construction ventilation, flues, chimneys and combustion air ventilators after the installation
	* use access equipment
17. how to maintain the tools and equipment used during cavity wall clearance
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## GQACWE5 Survey/inspect cavity wall clearance in the workplace

### Overview

This standard covers the skills and knowledge needed to carry out cavity wall clearance surveys to provide an accurate assessment of the cavity and building condition and provide clear and accurate information on the survey. All work must be completed following safe working practices, relevant legislation, and comply with contract information and the allocated timescales

### Outcomes

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| --- | --- |
| **Performance Criteria***You must be able to:* | **Knowledge & Understanding***You need to know and understand:* |
| 1. check proposed work will not adversely affect the following during the extraction process and post-completion:
	* combustion ventilation
	* appliance cooling ventilation
	* performance of flue systems
2. check proposed work will not adversely affect the functionality of the following during the extraction process and post-completion:
	* air supply vents /sub floor vents
	* extract vents
3. conduct cavity wall clearance surveys following safe working practices and criteria for traditional (brick/block) constructions
4. record findings following organisational guidelines and legislation
 | 1. requirements of the following parts/sections of the regulations:
	* workmanship
	* materials
	* structural stability
	* fire safety
	* resistance to moisture
	* ventilation
2. key aspects to consider on the following types of construction:
	* solid wall
	* cavity wall
	* timber framed
	* metal framed
	* concrete fill
3. what building types must be checked for presence of asbestos
4. how checks to determine asbestos containing materials are present are carried out and who by
5. what to do if asbestos is present or suspected
6. how to assess pre-existing damage in relation to:
	* internal damage to property being extracted
	* external damage to property being extracted
	* damage to properties that are being used to gain access to property being extracted
7. why these checks are important and how to record/report findings
8. aspects of structures that need to be assessed for suitability prior to carrying out cavity wall extraction.
9. why checks to assess if the condition of the wall structure is suitable for cavity wall extraction activities to commence are important and how to record/report the findings
10. how to determine the detail of the work in relation to:
	* measurement of wall area
	* parts of the property that have been modified or added since the original build
	* conservatories
	* non-habitable parts of the building
11. factors that can affect the safe operation of the following:
	* combustion ventilation
	* appliance cooling ventilation
	* flue systems
12. how to confirm proposed extractions meets the specifications for the work in relation to the:
	* extraction measure
	* building structure or building services
13. how to assess site layouts in relation to:
	* access
	* obstructions
	* rubble in cavity
	* access
	* outbuildings/conservatory
	* permissions needed
14. how to identify the following:
	* wool fibre
	* foam insulation
	* EPS bead/bonded bead
	* structural foams
15. how existing drill patterns can help identify materials installed into cavity walls
16. how weather conditions affect the choice of insulation
17. when and why it may be necessary to consult with other trades before, during, or after a survey
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### GQACWE6 Erecting and dismantling access/working platforms in the workplace

### Overview

This standard covers the skills and knowledge needed to erect and dismantle access/working platforms in accordance with job specifications, safe working practices and in the allocated time. You will have to demonstrate competence in the positioning, erection, dismantling and storage of 2 of the following: ladders/crawler boards, stepladders/platform steps, proprietary towers, trestle platforms, mobile scaffold towers or proprietary staging/podiums.

You must also understand how to communicate with others to ensure work is carried out effectively. All work must be carried out following safe working practices, minimising risk of damage to the work and surrounding area and using and maintaining tools and equipment effectively, including protective screens and signage. You must understand your responsibilities and the hazards associated with this type of work including the uses and limitations of different types of access equipment. You must also have knowledge of how to dispose of waste in accordance with legislation and environmental responsibilities, and the accident and emergency procedures. Finally, you must understand the types of problems that can occur when carrying out this type of work and the organisational procedures for dealing with them.

### Outcomes

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| --- | --- |
| **Performance Criteria***You must be able to:* | **Knowledge & Understanding***You need to know and understand:* |
| 1. interpret and extract information from specifications, method statements, risk assessments and manufacturers’ information
2. comply with information and/or instructions derived from risk assessments and method statement.
3. erect and dismantle access/working platforms using personal protective equipment (PPE) and access equipment safely following legislation and organisational requirements
4. select resources associated with own work including materials, components, tools and equipment.
5. protect work and surrounding areas from damage following organisational requirements
6. minimise damage and maintain clean workspaces
7. dispose of waste following legislation
8. complete work within the allocated time
9. erect and dismantle access/working platforms following organisation procedures including:

– moving, positioning/erecting, securing, checking, dismantling and removing.1. erect, dismantle and store access equipment following access regulations
2. use and store materials, hand tools and ancillary equipment following organisation requirements
 | 1. organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented
2. different types of information, their source and how they are interpreted in relation to:
	* specifications, current legislation, method statements, risk assessments and manufacturers’ information
3. Your responsibilities under current legislation and official guidance whilst working:
* in the workplace, at height, in confined areas, with tools and equipment, with movement/storage of materials and by manual handling
1. organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative
2. accident reporting procedures and who is responsible for making reports
3. why, when and how personal protective equipment (PPE) should be used and the types, purpose and limitations of each
4. how emergencies should be responded to and personal skills when involved with fires, spillages, injuries and other task-related hazards
5. characteristics, quality, uses, limitations and defects associated with the resources in relation to:
* ladders/crawler boards
* stepladders/platform steps
* trestles
* proprietary staging/podiums
* proprietary towers
* mobile scaffold towers
* protection equipment and notices
* tools and ancillary equipment
1. how resources should be used, how problems associated with resources are reported and how the organisational procedures are used
2. how to calculate quantity of equipment required
3. how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions
4. why disposal of waste should be carried out
5. the purpose of work programmes and why deadlines should be kept in relation to:
* organisational procedures for reporting circumstances which will affect the work programme.
1. how to apply safe work practices, follow procedures, report problems and establish the authority needed to rectify them, to:
* provide protection to the work area
* establish a base for equipment
* erect proprietary access equipment to manufacturer’s instructions suitable for the work
* erect non-proprietary access equipment suitable for the work
* place protective screens and notices
* check/monitor equipment during the period of use
* dismantle and store access equipment
* use tools and equipment
* work at height
1. the needs of other occupations and how to communicate within a team when erecting and dismantling access/working platforms
2. how to maintain tools and equipment used
 |