Level 2 Diploma in Ground Works Operations

Qualification Specification

V1.2 28/6/2017

Contents

Introduction

The ProQual Level 2 Diploma in Ground Works Operations qualification provides a nationally recognised qualification for existing workers and new entrants to the Civil Construction Industry, working in the specialised area of ground works operations. Candidates will utilise practical and technical skills needed to work as a ground works operative.

The awarding body for this qualification is ProQual Awarding Body (www.proqualab.com) and the regulatory body is the Office of Qualifications and Examinations Regulation (Ofqual).

The qualification has been accredited onto the Regulated Qualifications Framework (RQF) and is published on Ofqual's Register of Qualifications.

Qualification Profile
Level 2 Diploma in Ground Works Operations

Qualification title	**ProQual Level 2 Diploma in Ground Works Operations**
Ofqual qualification number	603/0724/9
Level	2
Total Qualification Time	306 hours (246 GLH)
Assessment	Pass or fail Internally assessed and verified by centre staff External quality assurance by ProQual verifiers
Qualification start date	7/11/16
Qualification end date	

Entry Requirements

There are no formal entry requirements for this qualification.

Centres should carry out an **initial assessment** of candidate skills and knowledge to identify any gaps and help plan the assessment.

Qualification Structure

To achieve the qualification candidates must complete the 13 Mandatory units.

Mandatory Units – complete ALL units			
Unit Ref.	**Title**	**Level**	**GLH**
D/615/3370	Health and Safety in a Construction Environment	1	40
H/615/3371	Workplace health, safety and welfare in ground works operations	2	40
K/615/3372	Operate a powered tool and equipment in ground works operations	2	20
M/615/3373	Utility location and avoidance in ground works operations	2	10
T/615/3374	Prepare for and carry out ground works operations	2	10
L/615/5213	Installing drainage in ground works operations	2	14
Y/615/5215	Laying kerbs and channels in ground works operations	2	14
D/615/5216	Laying modular paving in ground works operations	2	14
H/615/5217	Lay and finish concrete in ground works operations	2	14
A/615/3375	Working in confined spaces in ground works operations	2	10
F/615/3376	Providing shoring support in ground works operations	2	10
J/615/3377	Installing shallow pipelines in ground works operations	2	10
L/615/3378	Conform to productive work practices in ground works operations	2	40

Centre Requirements

Centres must be approved to offer this qualification. If your centre is not approved please complete and submit form **ProQual Additional Qualification Approval Application**.

Staff
Staff delivering this qualification must be appropriately qualified and/or occupationally competent.

Assessors/Internal Quality Assurance
Assessors for each unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge.

Assessors and internal quality assurance verifiers for competence-based units or qualifications will normally need to hold appropriate assessor or internal quality assurance qualifications.

Support for Candidates

Materials produced by centres to support candidates should:

- enable them to track their achievements as they progress through the learning outcomes and assessment criteria;
- provide information on where ProQual's policies and procedures can be viewed;
- provide a means of enabling Internal and External Quality Assurance staff to authenticate evidence

Assessment

This qualification is competence-based, candidates must demonstrate the level of competence described in the units. Assessment is the process of measuring a candidate's skill, knowledge and understanding against the standards set in the qualification.

The qualifications must be assessed in a work environment, and it must be internally assessed by an appropriately experienced and qualified assessor.

Each candidate is required to produce a portfolio of evidence which demonstrates their achievement of all of the learning outcomes and assessment criteria for each unit.

Evidence can include:

- observation report by assessor
- assignments/projects/reports
- professional discussion
- witness testimony
- candidate product
- worksheets
- record of oral and written questioning
- Recognition of Prior Learning

Learning outcomes set out what a candidate is expected to know, understand or be able to do.

Assessment criteria specify the standard a candidate must meet to show the learning outcome has been achieved.

Learning outcomes and assessment criteria can be found from page 8.

Practical demonstrations of evidence must be completed whilst in the workplace/practical environment.

Internal Quality Assurance

An internal quality assurance verifier confirms that assessment decisions made in centres are made by competent and qualified assessors, that they are the result of sound and fair assessment practice and that they are recorded accurately and appropriately.

Adjustments to Assessment

Adjustments to standard assessment arrangements are made on the individual needs of candidates. ProQual's Reasonable Adjustments Policy and Special Consideration Policy sets out the steps to follow when implementing reasonable adjustments and special considerations and the service that ProQual provides for some of these arrangements.

Centres should contact ProQual for further information or queries about the contents of the policy.

Results Enquiries and Appeals

All enquiries relating to assessment or other decisions should be dealt with by centres, with reference to ProQual's Enquiries and Appeals Procedures.

Certification

Candidates who achieve the requirements for this qualification will be awarded:

- A certificate listing all units achieved, and
- A certificate giving the full qualification title -

  ProQual Level 2 Diploma in Ground Works Operations

Claiming certificates

Centres may claim certificates for candidates who have been registered with ProQual and who have successfully achieved the qualification. All certificates will be issued to the centre for successful candidates.

Unit certificates

If a candidate does not achieve all of the units required for a qualification, the centre may claim a unit certificate for the candidate which will list all of the units achieved.

Replacement certificates

If a replacement certificate is required a request must be made to ProQual in writing. Replacement certificates are labelled as such and are only provided when the claim has been authenticated. Refer to the Fee Schedule for details of charges for replacement certificates.

Learning Outcomes and Assessment Criteria

Unit D/615/3370
Health and Safety in a Construction Environment

Learning Outcome - The learner will:	Assessment Criterion - The learner can:
1 Know the principles of risk assessment for maintaining and improving health and safety at work.	1.1 State the purpose of risk assessments and method statements. 1.2 State the legal requirements of risk assessments and method statements. 1.3 State common causes of work-related: • fatalities • injuries. 1.4 State the implications of not preventing accidents and ill health at work. 1.5 State the meaning of the following in relation to health and safety at work: • accident • near miss • hazard • risk • competence. 1.6 List typical hazards/risks associated with the following: • resources • equipment • obstructions • storage • services • wastes • work activities. 1.7 State the importance of reporting accidents and near misses. 1.8 State typical accident reporting procedures. 1.9 State who is responsible for making accident reports.
2 Know the importance of safe manual handling in the workplace.	2.1 State the reasons for ensuring safe manual handling in the workplace. 2.2 State potential injuries and ill health that may occur from incorrect manual handling. 2.3 State the employee's responsibilities under current legislation and official guidance for: • moving and storing materials • manual handling • mechanical lifting. 2.4 State the procedures for safe lifting in accordance with official guidance. 2.5 State the importance of using site safety equipment when handling materials and equipment.

Learning Outcome - The learner will:	Assessment Criterion - The learner can:
	2.6 List aids available to assist manual handling in the workplace.
	2.7 State how to apply safe work practices, follow procedures and report problems when carrying out safe manual handling in the workplace.
3 Know the importance of working safely at height in the workplace.	3.1 Define the term 'working at height'.
	3.2 State the employee's responsibilities under current legislation and official guidance whilst working at height.
	3.3 List hazards/risks associated with the following: dropping tools and debris • stability of ladders • overhead cables • fragile roofs • scaffolds • internal voids • equipment • the working area • other people.
	3.4 State how hazards/risks associated with working at height can be controlled.
	3.5 State the regulation that controls the use of suitable equipment for working at height.
4 Know risks to health within a construction environment.	4.1 List substances hazardous to health under current regulations.
	4.2 List common risks to health within a construction environment.
	4.3 State the types of hazards/risks that may occur in the workplace linked with use of drugs and alcohol.
	4.4 State the importance of the correct storage of combustibles and chemicals on site.
	4.5 State the importance of personal hygiene within a construction environment.
	4.6 State the potential hazards/risks to the health of workers exposed to asbestos.
	4.7 State types of asbestos waste.
	4.8 State types of personal protective equipment (PPE) used when dealing with hazardous materials.
	4.9 State the correct procedures and demonstrate the selection of correct PPE when carrying out Hot Works Operations
5 Know the importance of working around plant and equipment safely.	5.1 List ways in which moving machinery can cause injuries.
	5.2 State hazards/risks relating to the use of plant and equipment.

Learning Outcome - The learner will:	Assessment Criterion - The learner can:
	5.3 State the importance of keeping a safe distance away from plant/machinery and equipment until clear contact is made with the operator. 5.4 Outline how method statements can assist in ensuring the safety of workers where moving plant is in use. 5.5 State ways to eliminate or control hazards/risks relating to working around plant and equipment. 5.6 Demonstrate the identification of hazard warning signs and symbols used around the use of plant and equipment.

Assessment

There must be valid, authentic and sufficient for all the assessment criteria. However, one piece of evidence may be used to meet the requirements of more than one learning outcome or assessment criterion.

Practical demonstrations of evidence must be completed whilst in the workplace / practical environment to underpin all elements.

Unit H/615/3371
Workplace health, safety and welfare in ground works operations

Learning Outcome - The learner will:	Assessment Criterion - The learner can:
1 Understand health, safety and welfare requirements	1.1 State the role of the Health and Safety Executive
	1.2 Give examples of how induction, briefings and application of prior training can avoid risks in the workplace
	1.3 Identify why it is important to take individual responsibility for health, safety and welfare
	1.4 Explain the impact that behaviour can have on own and others' health and safety
	1.5 Identify and use health, safety and control equipment
	1.6 Explain why changing circumstances can create hazards
2 Understand the organisation's approach to health, safety and welfare	2.1 Demonstrate the health, safety and welfare that applies to the work area
	2.2 Outline the organisational policies and procedures for health, safety and welfare
	2.3 LIdentify the hazards and risks associated with the work area
	2.4 Outline the organisation's requirements for dealing with accidents and emergencies in the work environment
	2.5 Demonstrate the procedures for evacuation, including safe exit procedures
	2.6 Demonstrate the practical and written methods of reporting hazards in the work area
	2.7 Demonstrate the procedures for complying with control measures identified by risk assessments
	2.8 Demonstrate the correct use of the security arrangements in the work area
3 Understand risk control in the workplace	3.1 List the notices and warning signs associated with the work environment
	3.2 List the health and safety control equipment in the work area
	3.3 State when control equipment should be used
	3.4 Identify and use Personal Protective Equipment (PPE)
	3.5 Identify the types of Respiratory Personal Protection available
	3.6 State work situations where Respiratory Protective Equipment (RPE) is used
	3.7 State work situations where Local Exhaust Ventilation (LEV) is used
	3.8 List the different types of fire extinguisher in the workplace

Learning Outcome - The learner will:	Assessment Criterion - The learner can:
	3.9 Give examples of situations when different types of fire extinguisher should be used
	3.10 Demonstrate the practical application of extinguishing medium
4 Confirm health and safety requirements in the workplace	4.1 Interpret work instructions to maintain safe systems of work
	4.2 Take part in discussions with others to identify safe systems of work
	4.3 Provide feedback on health, safety and welfare policies
	4.4 Report hazards as they are identified
5 Work in accordance with health and safety requirements	5.1 Store equipment in designated areas
	5.2 Ensure equipment is secured appropriately when stored
	5.3 Dispose of waste in required receptacles, including those for reuse or recycling
	5.4 Use safety control equipment according to instructions, induction and prior training
	5.5 Follow the requirements of safety notices and warning signs, as directed
	5.6 Comply with control measures as identified by risk assessments and safe symbols of work

Assessment

There must be valid, authentic and sufficient for all the assessment criteria. However, one piece of evidence may be used to meet the requirements of more than one learning outcome or assessment criterion.

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Unit K/615/3372
Operate a powered tool and equipment in ground works operations

Learning Outcome - The learner will:	Assessment Criterion - The learner can:	
1 Know how to conduct pre and post-operational checks of powered tool, equipment and the work area	1.1	Interpret drawings and work specifications for the task
	1.2	Identify the correct powered tool and equipment for the task
	1.3	Identify components and controls of tool and equipment
	1.4	Check tools and equipment are safe for operational use
	1.5	Give examples of power sources that safely sustain the tool and equipment, e.g. 110V, Battery
	1.6	Identify potential hazards, including underground and overhead utilities apparatus, to avoid during the task
	1.7	State legislative requirements for disposing of waste
2 Know the safety requirements for operating powered tool and equipment	2.1	Identify personal protective equipment (PPE) for the task in accordance with the specification
	2.2	State procedures for workplace safety and dealing with problems, accidents and emergencies
	2.3	Demonstrate the workplace safety and legislative requirements for operating abrasive wheels, powered tools and equipment
3 Operate and monitor powered tool and equipment	3.1	Inspect and confirm tool and equipment are safe for operational use
	3.2	Secure accessories and tool attachments
	3.3	Operate powered tools, abrasive wheels and equipment in accordance with manufacturer's guidelines and the operator's handbook
	3.4	Monitor the power unit during the specified task
	3.5	Stop, dismantle and secure all tools and equipment
	3.6	Transport and/or store tools and equipment in line with the specification
	3.7	Comply with workplace safety and legislative requirements
	3.8	Dispose of waste in accordance with legislative requirements

Assessment

There must be valid, authentic and sufficient for all the assessment criteria. However, one piece of evidence may be used to meet the requirements of more than one learning outcome or assessment criterion.

Practical demonstrations of evidence must be completed whilst in the workplace / practical environment to underpin all elements.

Unit M/615/3373
Utility location and avoidance in ground works operations

Learning Outcome - The learner will:	Assessment Criterion - The learner can:
1 Understand published guidance covering utility avoidance in the location of buried services in construction	1.1 Explain what is meant by a Safe System of Work
	1.2 Describe the difference between legislation and guidance
	1.3 Explain the reasons why excavations take place
	1.4 Describe the consequences of an underground service strike
2 Understand the importance of regulations related to the location of buried services in construction	2.1 Describe client responsibility in terms of buried services
	2.2 Describe the responsibility of construction designers in terms of buried services
	2.3 Describe how to identify when it is necessary to make alterations to a project due to the presence of buried services
3 Understand the advantages of obtaining accurate information related to the positioning of underground services	3.1 Identify different types of drawings used in services location
	3.2 Describe types of inaccuracies that may be found in drawings
	3.3 Explain how the data and detail on drawings may have limitations
	3.4 Describe how regional differences may exist on drawings
4 Understand the requirements for the maintenance of underground service location equipment	4.1 Describe the calibration requirements of the equipment
	4.2 Describe the reasons for the correct storage and carriage of equipment including ancillaries
	4.3 Demonstrate equipment functionality including ancillaries
	4.4 Demonstrate the use of control measures for faulty equipment including ancillaries
5 Be able to recognise electro-magnetic fields and their relationship to underground service location	5.1 Demonstrate how to apply active signals to services
	5.2 Describe the use of passive signals in service location
	5.3 Describe how service depth is obtained when using electro-magnetic location methods
	5.4 Demonstrate how to accurately position services when using service location equipment
	5.5 Describe the limitations of electro-magnetic location in areas of heavy service congestion
	5.6 Describe the effects of metallic structures on electro-magnetic service location

Learning Outcome - The learner will:	Assessment Criterion - The learner can:
	5.7 Describe the types of services, including construction materials, that can be located using electro-magnetic location
6 Be able to close out a site	6.1 Demonstrate final site sweeping procedures
	6.2 Describe site surface marking standards
	6.3 Explain site handover requirements

Assessment

There must be valid, authentic and sufficient for all the assessment criteria. However, one piece of evidence may be used to meet the requirements of more than one learning outcome or assessment criterion.

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Unit T/615/3374
Prepare for and carry out ground works operations

Learning Outcome - The learner will:	Assessment Criterion - The learner can:
1 Understand the health and safety permit process	1.1 State the rationale for the permit to break ground
	1.2 Explain why it is important to take individual responsibility for health and safety
	1.3 Explain the importance of health, safety and control equipment
	1.4 Demonstrate correct completion of the permit to break ground
2 Understand why a site ground investigation is undertaken	2.1 Explain why ground investigation of a site should be carried out prior to breaking ground
	2.2 List hazards associated with previous site usage of construction sites
	2.3 Identify examples of contaminated land
3 Understand the term sub-structure and ground stabilisation	3.1 Describe what a Substructure is
	3.2 Identify methods of ground stabilisation
	3.3 Explain factors that affect ground conditions
	3.4 State the purpose of geosynthetic materials
	3.5 Demonstrate the correct application of geosynthetic materials in a construction environment
4 Understand the importance of correct "blinding" techniques	4.1 Outline the role of blinding
	4.2 Explain why accurate blinding is critical to further works being carried out
	4.3 Describe the method / procedure of blinding
	4.4 Demonstrate correct blinding techniques
5 Understand the term "benching"	5.1 Explain why benching is critical to further works being carried out
	5.2 Mix the benching materials to the required specification
	5.3 Demonstrate benching of a manhole chamber
	5.4 Operate hand/powered tools and equipment
6 Understand the term "stepping"	6.1 Outline why stepping is carried out when excavating
7 Be able to demonstrate the compaction of sub base materials	7.1 Demonstrate the compaction of the sub base

Assessment

There must be valid, authentic and sufficient for all the assessment criteria. However, one piece of evidence may be used to meet the requirements of more than one learning outcome or assessment criterion.

Practical demonstrations of evidence must be completed whilst in the workplace / practical environment to underpin all elements.

Unit L/615/5213
Installing drainage in ground works operations

Learning Outcome - The learner will:	Assessment Criterion - The learner can:
1 Know the requirements for installing drainage	1.1 Interpret the given drawings and specifications for work
	1.2 Explain the procedures for workplace safety and dealing with problems, accidents and emergencies
	1.3 Comply with legislative requirements for disposing of waste
2 Know how to prepare for installing drainage	2.1 Identify the materials and resources including pipes, fittings, manholes, inspection chambers, sand, cement, mortar, concrete, sealant and ancillary components
	2.2 Calculate the quantity of components and materials required to meet the specification
	2.3 Identify the hand and/or powered tools and equipment required
	2.4 Identify personal protective equipment (PPE) for the task, in accordance with the specification
	2.5 Identify the types of hazards related to drainage
3 Be able to install drainage components to line and gradient required	3.1 Select personal protective equipment (PPE) and operate hand and/or powered tools and equipment for the task, in accordance with the specification
	3.2 Measure and set out the work area and protect from damage during the task
	3.3 Prepare the ground to receive drainage components
	3.4 Position and lay drainage to gradients and alignment to meet the specification
	3.5 Install plastic, concrete and brick inspection chambers
	3.6 Install pre-cast structures of the drainage system
	3.7 Lay drainage components to specification
	3.8 Test the drainage system is complete and operational
	3.9 Backfill and compact the work area as required

Assessment

There must be valid, authentic and sufficient for all the assessment criteria. However, one piece of evidence may be used to meet the requirements of more than one learning outcome or assessment criterion.

Practical demonstrations of evidence must be completed whilst in the workplace / practical environment to underpin all elements.

Unit Y/615/5215
Laying kerbs and channels in ground works operations

Learning Outcome - The learner will:	Assessment Criterion - The learner can:
1 Know how to prepare for the construction of kerbs and channels	1.1 Interpret drawings and specifications for the work
	1.2 Identify the materials and resources required including sand, cement, aggregates, additives, pre-cast and stone kerbs and channels
	1.3 Confirm the quantity of materials required
	1.4 Set up pins and lines to the required level
	1.5 Give examples of tools and equipment used for setting out
	1.6 Identify the procedures for workplace safety and dealing with problems, accidents and emergencies
	1.7 Comply with the legislative requirements for disposing of waste
2 Know how to set out the work area for the construction of kerbs and channels	2.1 Confirm the type of kerbs and channels to be used
	2.2 Set out the work area
	2.3 Prepare ground and formation
	2.4 Set up lines to the required gradient
	2.5 Demonstrate how to transport and stack kerbs and channels
3 Be able to lay kerbs and channels to specification	3.1 Bed kerbs and channels to required specification
	3.2 Operate hand and/or powered tools and equipment
	3.3 Comply with workplace safety requirements
	3.4 Dispose of waste in accordance with legislative procedures

Assessment

There must be valid, authentic and sufficient for all the assessment criteria. However, one piece of evidence may be used to meet the requirements of more than one learning outcome or assessment criterion.

Practical demonstrations of evidence must be completed whilst in the workplace / practical environment to underpin all elements.

Unit D/615/5216
Laying modular paving in ground works operations

Learning Outcome - The learner will:	Assessment Criterion - The learner can:
1 Know the requirements for modular paving	1.1 Interpret drawings and specifications for work
	1.2 Identify the procedures for workplace safety and dealing with problems, accidents and emergencies
	1.3 Comply with legislative requirements for disposing of waste
2 Know how to prepare and set out for modular paving	2.1 Identify materials and resources required including sand, concrete, blocks, stone sets, bricks and flags
	2.2 Identify hand and/or powered tools and equipment required
	2.3 Calculate the quantity of materials required to meet the specification
	2.4 Identify personal protective equipment (PPE) for the task, in accordance with the specification
3 Be able to lay modular paving	3.1 Select personal protective equipment (PPE) for the task, in accordance with the specification
	3.2 Measure and set out the work area to specification
	3.3 Prepare ground and base, lay sub-base and set out edge restraints to specification
	3.4 Lay bedding materials and screed to the required level and specification
	3.5 Protect the work from becoming damaged during the task
	3.6 Lay modular block, brick, set and flag, domestic and commercial paving to specification
	3.7 Operate hand and/or powered tools and equipment
	3.8 Compact and seal the paved area
	3.9 Comply with workplace safety and legislative requirements for disposing of waste

Assessment

There must be valid, authentic and sufficient for all the assessment criteria. However, one piece of evidence may be used to meet the requirements of more than one learning outcome or assessment criterion.

Practical demonstrations of evidence must be completed whilst in the workplace / practical environment to underpin all elements.

Unit H/615/5217
Lay and finish concrete in ground works operations

Learning Outcome - The learner will:	Assessment Criterion - The learner can:
1 Know the requirements for laying and finishing concrete	1.1 Interpret drawings and specifications for work 1.2 Identify the procedures for workplace safety and dealing with problems, accidents and emergencies 1.3 Comply with the legislative requirements for disposing of waste
2 Know how to prepare for laying and finishing concrete	2.1 Calculate the concrete required to meet the works specification 2.2 Identify the materials and resources required including concrete, fabric reinforcement, timber, plywood, edgings and fixings 2.3 Identify the hand and/or powered tools and equipment required 2.4 Identify personal protective equipment (PPE) for the task, in accordance with the specification 2.5 Identify the types of hazards to be aware of during the work
3 Be able to lay and finish concrete to specification	3.1 Prepare the base and set out the work area 3.2 Lay reinforcement according to specification 3.3 Mix, transport and lay concrete according to specification 3.4 Place fabric reinforcement 3.5 Form slab edging 3.6 Prepare at least two of the following materials for use to given working instructions: • cementitious • plasters • resins • adhesives • bonding agents • colourings • waterproof coatings • grouts • pre-mixed compounds • granular fill • cohesive fill • concrete • bituminous 3.7 Operate hand and/or powered tools and equipment 3.8 Compact and finish concrete to specification 3.9 Comply with workplace safety and legislative requirements for disposing of waste

Assessment

There must be valid, authentic and sufficient for all the assessment criteria. However, one piece of evidence may be used to meet the requirements of more than one learning outcome or assessment criterion.

Practical demonstrations of evidence must be completed whilst in the workplace / practical environment to underpin all elements.

Unit A/615/3375
Working in confined spaces in ground works operations

Learning Outcome - The learner will:	Assessment Criterion - The learner can:
1 Understand current policies and legislation relating to confined spaces	1.1 Define the term “confined space“ 1.2 Identify the health, safety and welfare legislation that applies to confined spaces 1.3 Outline the organisational policies and procedures for confined spaces
2 Recognise associated hazards when working in a confined space	2.1 List the hazards and risks when working in a confined space work environment 2.2 List the health and safety control equipment in the work area 2.3 Identify when control equipment should be used 2.4 Explain the purpose of Personal Protective Equipment (PPE)
3 Understand safe systems of work for confined spaces	3.1 Interpret work instructions to maintain safe systems of work 3.2 Report hazards as they are identified
4 Be able to use the equipment needed to perform safe access/egress of a confined space	4.1 Explain what is meant by ”intrinsic safety” 4.2 Explain the importance of gas detection 4.3 Ensure equipment is secured appropriately when stored 4.4 Use safety control equipment according to instructions, induction and prior training Including: • Gas Detection • Respiratory Protective Equipment • Access / Egress Equipment • Lighting • Communications • Safety Harness

Assessment

There must be valid, authentic and sufficient for all the assessment criteria. However, one piece of evidence may be used to meet the requirements of more than one learning outcome or assessment criterion.

Practical demonstrations of evidence must be completed whilst in the workplace / practical environment to underpin all elements.

Unit F/615/3376
Providing shoring support in ground works operations

Learning Outcome - The learner will:		Assessment Criterion - The learner can:
1 Interpret the given information relating to the work and resources when providing temporary excavation support in ground works operations	1.1	Interpret and extract information from drawings, specifications, schedules and manufacturers' information
	1.2	Comply with information and/or instructions derived from risk assessments and method statement
	1.3	State the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented
	1.4	Describe different types of information, their source and how they are interpreted in relation to: - drawings, specifications, schedules, manufacturers' information and regulations governing construction works and support of excavations
2 Know how to comply with relevant legislation and official guidance when providing temporary excavation support	2.1	Describe their 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 and by manual handling and mechanical lifting
	2.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative
3 Maintain safe working practices when providing temporary excavation support	3.1	Use personal protective equipment (PPE) and access equipment/working platforms safely to carry out the activity in accordance with legislation and organisational requirements when providing temporary excavation support
	3.2	Explain why and when personal protective equipment (PPE) should be used, relating to providing temporary excavation support, and the types, purpose and limitations of each type
	3.3	State how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards
4 Select the required quantity of quality of resources for the methods of work to provide temporary excavation support	4.1	Describe the characteristics, quality, uses, limitations and defects associated with the resources in relation to: • poling boards, wailings, struts, wedges, soldiers, steel struts and trench sheets • proprietary systems • ancillary fixing devices • hand and/or powered tools and ancillary equipment
	4.2	Demonstrate the selection of resources associated with own work in relation to materials, components, fixings, tools and equipment

Learning Outcome - The learner will:	Assessment Criterion - The learner can:	
	4.3	State how the resources should be used correctly, how problems associated with the resources are reported and how the organisational procedures are used
	4.4	Outline potential hazards associated with the resources and method of work
	4.5	Describe how to calculate quantity, length, area and wastage associated with the method/procedure to provide temporary excavation support
5 Minimise the risk of damage to the work and surrounding area when providing temporary excavation support	5.1	Protect the work and its surrounding area from damage
	5.2	Minimise damage and maintain a clean work space
	5.3	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions
	5.4	Dispose of waste in accordance with legislation
	5.5	State why the disposal of waste should be carried out in relation to the work
6 Be able to measure, mark out, prepare, position, fit support, fix secure, dismantle and remove shoring equipment	6.1	Install proprietary systems, e.g. drag box, trench box, manhole box
	6.2	Install open and closed support systems
	6.3	Install piling systems, e.g. diaphragm wall, trench sheets, sheet piles, secant support or contiguous support
	6.4	Install bespoke support systems
7 Be able to install temporary excavation supports	7.1	Construct and fit temporary excavation support shorings to specification
	7.2	Secure temporary excavation support shorings to specification
	7.3	Dismantle and remove the excavation support structure
	7.4	Operate hand and/or powered tools and ancillary equipment
	7.5	Carry out checks on the safety and maintenance of support shorings
	7.6	Comply with workplace safety requirements
	7.7	Dispose of waste in accordance with legislative requirements

Assessment

There must be valid, authentic and sufficient for all the assessment criteria. However, one piece of evidence may be used to meet the requirements of more than one learning outcome or assessment criterion.

Practical demonstrations of evidence must be completed whilst in the workplace / practical environment to underpin all elements.

Unit J/615/3377
Installing shallow pipelines in ground works operations

Learning Outcome - The learner will:	Assessment Criterion - The learner can:
1 Interpret the given information relating to the work and resources when installing pipelines	1.1 Interpret and extract the relevant information from drawings, risk assessments, method statements, specifications, schedules and manufacturers information
	1.2 Comply with information and / or instructions derived from risk assessments and method statements
	1.3 Describe different types of information, their source ad how they are interpreted in relation to – drawings, risk assessments, method statements, regulations governing the installation of pipe-laying
2 Know how to comply with relevant legislation and official guidance when installing pipelines	2.1 Describe their responsibilities regarding potential accidents and health hazards, whilst working: • in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting
3 Maintain safe and healthy working practices when installing pipelines	3.1 Use health and safety control equipment and access equipment safely to carry out the activity in accordance with current legislation and organisational requirements when installing pipelines
	3.2 Comply with information relating to specific risks to health when installing pipelines
	3.3 Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards
4 Select the required quantity and quality of resources for the methods of work to install pipelines	4.1 Demonstrate the selection of resources associated with own work in relation to materials, components and fixings, and tools and equipment
	4.2 Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to: • pipes, fittings and ancillary components • pre-cast (metal, concrete, clay or plastic) components • bricks, blocks and sandbags • granular materials, aggregates, cement, concrete, mortars and sand • sealant materials (adhesives, compounds, solvents) • hand and/or powered tools and equipment.

Learning Outcome - The learner will:	Assessment Criterion - The learner can:
5 Be able to construct concrete structures and access points	5.1 Construct concrete structures and access points 5.2 Operate hand and/or powered tools and equjipment

Assessment

There must be valid, authentic and sufficient for all the assessment criteria. However, one piece of evidence may be used to meet the requirements of more than one learning outcome or assessment criterion.

Practical demonstrations of evidence must be completed whilst in the workplace / practical environment to underpin all elements.

Unit L/615/3378
Conform to productive working practices in ground works operations

Learning Outcome - The learner will:	Assessment Criterion - The learner can:
1 Know how to work productively in the workplace	1.1 Explain why it is important to be productive in the workplace
	1.2 State the procedures that must be followed in the workplace
	1.3 List the documentation that must be maintained by the organisation including job cards, worksheets, material/resources lists and timesheets
	1.4 State the importance of maintaining accurate, up to date records
2 Understand low/zero carbon outcomes	2.1 Explain why zero/low carbon production is desirable
	2.2 Describe the contribution that the built environment makes to carbon production
	2.3 Explain how zero/low carbon production can be achieved in the built environment
	2.4 Explain the term “sustainability” and how this affects the organisation
	2.5 Contribute to the organisation’s sustainability policy
3 Understand equality and diversity in the workplace	3.1 State the legislation that protects equality and diversity in the workplace
	3.2 Explain why equality and diversity in the workplace is important
4 Know how to communicate with others	4.1 Describe ways of communicating with others that encourages cooperation
	4.2 Outline the methods of communication used in the workplace
	4.3 State the information needs of the customer, line manager, own occupation and allied trades
5 Work productively in the workplace	5.1 Interpret procedures to plan a productive sequence of work
	5.2 Plan a sequence of work which is productive and sets out the use of time and resources
	5.3 Communicate with others in the work environment to ensure that work is carried out productively
	5.4 Maintain records as required in the workplace and by the organisation

Assessment

There must be valid, authentic and sufficient for all the assessment criteria. However, one piece of evidence may be used to meet the requirements of more than one learning outcome or assessment criterion.

Practical demonstrations of evidence must be completed whilst in the workplace/practical environment to underpin all elements.

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