

National Occupational Standards

Sector: Building and Construction

Occupation: Limestone Block and Hollow Concrete Block Layer

MQF Level: 3

Units:

- SBL 301: Health and safety during work practices
- SBL 302: Identification of systems, equipment and components
- SBL 303: Reading of drawings and calculations
- SBL 304: Laying of limestone and hollow concrete blocks to line

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SBL 301: Health and safety during work practices

This unit is about being able to use safe procedures and safe work practices. The persons carrying out this work must possess the necessary knowledge and skills to ensure that their actions do not create health and safety risks to themselves and others, and to identify risks and hazards associated with the working environment, tools, equipment, materials and substances used.

Performance Criteria:

The candidate must have the necessary knowledge and skills to:

1. Carry out safe working practices to prevent hazards and to ensure the safety of one self, workers and members of the public.
2. Carry out safe working practices when using appropriate equipment and materials to prevent damages to work areas and injuries to oneself and 3rd parties.
3. Carry out the safe erection, use and dismantling of simple access platforms less than 2m high.
4. Set up safety barriers and adequate edge protection around a work environment to protect colleagues and members of the public.
5. Use protective clothing and safety equipment according to specifications issued by manufacturers and know the whereabouts of first-aid and fire fighting equipment.
6. Use, handle and store materials hazardous to health in a safe manner and with proper labelling.
7. Assist safety officer or any other competent person in carrying out a risk assessment to cover the job assigned and the working area and fully understand the content of all relevant reports.
8. Locate and switch-off temporary or fixed electrical switch gear, systems isolating valves as instructed in the health and safety procedures.
9. Ensure that the site is not accessible to unauthorized persons at all times and according to standard procedures.

Required Knowledge

Level 3 Limestone Block or Hollow Concrete Block Layer must know and explain:

1. The roles and responsibilities of themselves and others under the Health and Safety Act.
2. The health and safety risks associated with their role which includes tools, materials and equipment used and working practices and procedures.
3. The potential hazardous materials commonly found at the workplace.
4. The procedures for dealing with potential hazardous material in the place of work.
5. The health concerns associated with the workplace and safe practices when carrying out work.
6. The hazards and potential hazards at the place of work (such as electricity, slippery and uneven surfaces, dust and fumes, handling and transporting, contaminants and irritants, fire, heights,

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- improper use of tools and equipment).
7. The importance of being alert to the presence of hazards in the place of work.
 8. The responsible persons to whom to report health and safety matters or any other occurring hazards.
 9. The emergency procedures in the place of work.
 10. The first aid and fire fighting facilities that exist within the work area.
 11. The best way to make use of barricades, industrial hurdles, and warning signs to make areas clearly marked out of bounds.
 12. The safety procedures when using scaffold platforms (less than 2 m). (note: knowledge on how to use a scaffold safely is not limited to height. The limitation is only when erecting, dismantling and taking responsibility of the scaffold).
 13. The safety requirements and regulations regarding scaffolds higher than 2m. (certification and weekly checks by competent persons).
 14. The necessary safety precautions including the use of protective clothing and equipment for a range of applications.
 15. The methods used for protecting customers' property.
 16. When and how it is required to isolate existing services (electricity and domestic water services from the main water supply)
 17. Any toxic effect from materials commonly used at construction sites.
 18. The preventive and remedial actions to be taken in the case of exposure to materials hazardous to health.

Required Skills

Level 3 Limestone Block or Hollow Concrete Block Layer must be able to:

1. Identify which health and safety procedures are relevant to the working environment.
2. Seek competent person's assistance when help is needed.
3. Ensure compliance with duties and obligations as defined by the Occupational Health and Safety Act 2000 and recent amendments.
4. Follow workplace policies and supervisors' instructions for the safe use and maintenance of tools and equipment.
5. Control health and safety hazards within the job responsibility.
6. Report any hazards which may present risk to relevant persons.
7. Follow correct procedures in the event of injuries to themselves or others.
8. Take remedial action where work methods are not in line with control measures noted and

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identified from risk assessment.

9. Adhere to work production and installation processes as agreed with the supervisor.
10. Apply the necessary skills to erect, use and dismantle access equipment (at height less than 2m).
11. Read, interpret and install warning signs and sets up safety barriers and edge protection around working areas.
12. Equip oneself with the appropriate protective clothing and safety equipment for stone or concrete block laying and some other specific tasks.
13. Use, label and store materials hazardous to health in a safe manner.
14. Monitor the work place and maintain good housekeeping whilst keeping it free from hazards.
15. Where applicable, make sure that all existing services (water and electricity) have been isolated prior to commencement of work.
16. Communicate information regarding unfamiliar and unpredictable situations to colleagues and supervisors.
17. Advocate appropriate health and safety procedures.

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SBL 302: Identification of systems, equipment and components

This unit is about identifying the different materials for specific applications based on their technical properties and identifying direct and indirect environmental impacts.

Performance Criteria

The candidate must have the necessary knowledge and skills to:

1. Distinguish between type of different masonry units and their uses based on technical properties and characteristics.
2. Distinguish between damp Proof Course and damp Proof Membrane based on technical specifications.
3. Distinguish between a range of metal wall-ties when applicable.
4. Distinguish between a range of insulating material when applicable
5. Distinguish between any other materials needed to properly execute job.

Required Knowledge

Level 3 Lime Stone Block or Hollow Concrete Block Layer must know and explain:

1. The range of materials, products and procedures applicable to the relevant work and their benefits.
2. Horizontal, vertical and inclined planes and the use of levelling and aligning equipment for particular situations.
3. The different mortar mixes used as a binding layer between the different masonry units.
4. Methods and techniques to minimise wastage and to minimize environmental hazards.

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Required Skills

Level 3 Lime Stone or Hollow concrete block Layer must be able to:

1. Distinguish between and apply the different types of materials, products, methods and procedures applicable to limestone or concrete block laying.
2. Distinguish between and apply a range of damp proof Course and damp Proof Membrane products.
3. Distinguish between and apply a range of graded mortars, binding layer mortar mixes and appropriate industrial sieves.
4. Distinguish between the different types of cutting disks suitable for limestone or hollow concrete blocks and any other building materials.
5. Apply procedures to minimise off-cuts and construction material waste and dispose construction waste as stipulated in the environmental protection act.

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SBL 303: Reading of drawings and calculations

This unit is about understanding and applying dimensions from drawings and calculating quantities in the preparation, costing and estimation.

Performance Criteria

The candidate must have the necessary knowledge and skills to:

1. Read and interpret plans and specifications to select type of hollow concrete blocks or any other masonry units.
2. Read and interpret plans to establish important building datum grids and levels.
3. Calculate the quantities of hollow concrete blocks or any other masonry units bricks required to meet work schedules and work load.
4. Calculate the quantity of consumables required to meet work schedules and work load.
5. Check and investigate deviations and misalignments against tolerances given.

Required Knowledge

Level 3 Lime Stone Block or Hollow Concrete Block Layer must know and explain:

1. Compilations of overall linear dimensions from drawings.
2. Calculations including those involving quantities and costs of materials.
3. Which tools and equipment are used to set out levels and datum grids.
4. The correct procedure for setting out work systems.
5. The scale working drawings from plans.
6. The spirit levels available specifically designed for building of walls on inclined planes.

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Required Skills

Level 3 Limestone or Hollow concrete block Layer must be able to:

1. Translate drawing details to setting out of work where necessary.
2. Check spirit levels and plumpness for accuracy.
3. Translate quality specifications on actual work.
4. Calculate quantity of masonry units and other materials required for a job.
5. Take-off quantities from drawing.
6. Measure and comprehend calculations using metric units.
7. Read and show awareness of annotated building drawings.
8. Keep record of any variations and deviation from plans.

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SBL 304: Laying of limestone and hollow concrete blocks to line

This Unit is about using tools and equipment to prepare limestone and hollow concrete blocks bricks to required size and to lay limestone and hollow concrete blocks to line to built walls

Performance Criteria

The candidate must have the necessary knowledge and skills to:

1. Measure, mark and cut to size hollow concrete blocks with appropriate equipment.
2. Lay hollow concrete blocks (to line) to form single and double walls with specified ties as required.
3. Lay hollow concrete blocks to construct columns and insert reinforcement where necessary.
4. Set out datum grid lines and levels to lay hollow concrete blocks within specified tolerance
5. Form 'joint-finish' as limestone or hollow concrete block laying courses progress to meet doors and windows opening tolerances.
6. Assemble and use appropriately access working platforms.
7. Lay hollow concrete blocks to form tall walls to meet specified tolerance such as joint alignment, level alignment, vertical alignment at corners and within bays, and lateral alignment.
8. Lay hollow concrete blocks to form lift shafts within specified tolerance and insert reinforcement bars and infill with concrete as necessary.
9. Use the spirit level, plumb line, piano wire ('lenza'), straight edge and builders square ('skwerra') to lay bricks within tolerance specified.
10. Check shafts for skewed misalignments.
11. Install reinforced steel bars in bricks as given instructions where applicable.

Required Knowledge

Level 3 Limestone Block or Hollow Concrete Block Layer must know and explain:

1. Limestone or hollow concrete block laying tools and equipment.
2. The methods of use and maintenance of equipment.
3. The types of hollow concrete blocks used locally.
4. The use of the various types of equipment.

Required Skills

Level 3 Lime Stone or hollow concrete block Layer must be able to:

5. Confirm that materials, tools and equipment required are fit for their intended purpose.
6. Identify, use, clean and store the basic hand tools.
7. Read and interpret manufacturer instructions to lay DPC and DPM materials.

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8. Control the quality and accuracy of cuts with power tools and equipment.
9. Check the accuracy of limestone or hollow concrete block laying methods.
10. Read, interpret and convert metric linear dimensions to meters, cm and mm.
11. Read, interpret and project 90/45 degree angular measurements;
12. Identify datum lines and establish procedures to check shaft/ internal yards/ rooms for skewed misalignment as work progress.

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