

INSTALL RAINWATER HARVESTING AND DISPOSAL

UNIT CODE: CON/OS/PL/CR/02/5/A

UNIT DESCRIPTION

This unit specifies the competencies required to harvest and dispose rain water. It involves preparing working drawings, quantifying and costing materials, using tools and equipment, installing rain water goods, testing rainwater goods and harvesting / disposing rainwater. It applies in the construction industry.

ELEMENTS AND PERFORMANCE CRITERIA

ELEMENT These describe the key outcomes which make up workplace function .	PERFORMANCE CRITERIA These are assessable statements which specify the required level of performance for each of the elements. <i>Bold and italicized terms are elaborated in the Range</i>
1. Prepare working drawing	1.1 Drawings are identified and selected based on the job. 1.2 Scale of the drawing is determined based on the specifications. 1.3 Measurements are converted based on scale. 1.4 Symbols are identified based on standard practices. 1.5 Isometric pipework drawings are sketched based on drawings.

	<p>1.6 Simple working drawings are produced based on specifications.</p>
<p>2. Quantify and cost materials</p>	<p>2.1 Materials are classified based on specifications 2.2 Materials are estimated and costed as per the market rate 2.3 Materials schedule are prepared based on best practice 2.4 Supplies are identified based on specification</p>
<p>3. Use tools and equipment</p>	<p>3.1 Personal Protective Equipment is used in line with occupational safety and health requirements 3.2 Rainwater goods tools and equipment are identified based on the requirements of the job. 3.3 Rainwater goods tools and equipment are used based on manufacturer's instructions. 3.4 Rainwater goods tools and equipment are cared for and maintained based on manufacturer's manual and workplace place policy. 3.5 Rainwater goods tools and equipment are stored based on manufacturer's instructions</p>
<p>4. Install rain water goods</p>	<p>4.1 Types of water harvesting methods are identified based on the local authority by- laws 4.2 Types of rain water disposal methods are identified based on the local authority by- laws 4.3 Rainwater goods are identified based on the drawing 4.4 Measurements are taken and marking out is done based on the drawing 4.5 Material is cut based on drawings. 4.6 Pieces are jointed based on specifications 4.7 Pieces are assembled based on working drawing</p>

5. Test rainwater goods	<p>5.1 Rain water goods are installed based on working drawings</p> <p>5.2 Water test is conducted based on best practices.</p> <p>5.3 Faults in structure and functionality of rainwater goods are corrected based on best practice</p> <p>5.4 <i>Housekeeping</i> is conducted based on workplace procedures.</p> <p>5.5 Safety and health practices are observed based on OSHA</p>
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RANGE

This section provides work environments and conditions to which the performance criteria apply. It allows for different work environments and situations that will affect performance.

Variables	Range
1. Personal Protective Equipment may include but not limited to:	<ul style="list-style-type: none"> • Helmet • Gloves • Dustcoat / overall • Safety shoes / boots
2. Rainwater goods tools and equipment may include but not limited to:	<ul style="list-style-type: none"> • Measuring tools • Forming tools • Cutting tools • Welding equipment • Soldering bit

	<ul style="list-style-type: none"> • Folding tools
<p>3. Rainwater goods may include but not limited to:</p> <p>4.</p>	<ul style="list-style-type: none"> • Down pipes • Gutters • Brackets • Hopper head • Rainwater shoe
<p>5. Housekeeping may include but not limited to:</p>	<ul style="list-style-type: none"> • Protecting existing works and sanitary appliances • Clearing work area • Cleaning work area • Keeping work area tidy

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit of competency.

Required Skills

The individual needs to demonstrate the following skills:

- Interpersonal skills
- Communication skills
- Sketching skills
- Interpretation skills
- Problem-solving skills
- Critical thinking skills
- Organizing skills
- Measuring skills
- Numeracy skills
- Cutting skills
- Threading skills
- Bending skills
- Interpersonal Relationship skills

Required Knowledge

The individual needs to demonstrate knowledge of:

- Interpretation of symbols

- Conversion of units
- Materials and supplies
- Rainwater goods tools and equipment's
- Methods of jointing
- Bending methods
- Mensuration
- Faults in rainwater goods

EVIDENCE GUIDE

This provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge and range.

<p>1. Critical Aspects of Competency</p>	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 Accurately identified and selected working drawings. 1.2 Accurately read and used drawing Scales 1.3 Converted measurements accurately 1.4 Appropriately identified symbols. 1.5 Prepared simple working drawings correctly 1.6 Classified materials accurately 1.7 Estimated and costed materials appropriately 1.8 Prepared Materials schedule correctly 1.9 Identified Supplies correctly 1.10 used Personal Protective Equipment appropriately 1.11 Identified Rainwater goods tools and equipment appropriately. 1.12 Used rainwater goods tools and equipment correctly 1.13 Maintained rainwater goods tools and equipment correctly. 1.14 Stored tools and equipment correctly. 1.15 Identified rainwater goods Correctly 1.16 Measurements and marking-out is done accurately 1.17 Materials cut correctly. 1.18 Pieces jointed correctly 1.19 Pieces assembled correctly 1.20 Installed Rain water goods correctly 1.21 Water test conducted appropriately 1.22 Housekeeping conducted appropriately 1.23 Safety and health practices observed correctly
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	<p>1.24 Types of water harvesting methods identified correctly</p> <p>1.25 Types of storm water disposal methods identified appropriately</p>
2. Resource Implications	<p>The following resources must be provided:</p> <p>2.1 A functional workshop with plumbing tools, equipment, materials and supplies.</p> <p>2.2 References and manuals including construction working drawings</p> <p>2.3 Personal protective equipment</p>
3. Methods of Assessment	<p>Competency may be assessed through:</p> <p>3.1 Practical Test</p> <p>3.2 Oral Questioning</p> <p>3.3 Written Test</p> <p>3.4 Third party report</p> <p>3.5 Portfolio</p>
4. Context of Assessment	<p>Assessment may be done:</p> <p>4.1 On-the-job,</p> <p>4.2 Workshop simulation or</p> <p>4.3 During Work placement.</p>
5. Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended</p>