

RIICCM208E

Learner Guide Instructions

Who is this document for?

The learner.

What is in this document?

- Course information that matches the PowerPoint presentation.
- Review questions.
- Practical assessment instructions for learners.

What do you need to do before you use it for the first time?

1. Rebrand the document.
2. Review the document as part of your validation process.
3. Set the reading and test time limits that are highlighted in pink at the end of the document.

See the 'Read Me First' document for a complete set of instructions on how to use these resources.



LEARNER GUIDE

RIICCM208E Carry Out Basic Levelling

Learner Name:	
Learner ID:	
Learner Contact Number:	
Learner Email Address:	
Date Training Commenced:	

This Book Contains:

- Course Information.
- Review Questions.
- Practical Assessment overview and Instructions.

Evaluation Copy Only

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1.1 Introduction



This course is based on the unit of competency **RIICCM208E Carry Out Basic Levelling**.

You will learn about:

- ◆ Planning and preparing tasks and activities.
- ◆ Establishing offsets for civil works.
- ◆ Setting up and using levelling devices.
- ◆ Cleaning up the work area.

1.1.1 What is Levelling?

Levelling is adding or removing materials to create a specific height or grade (angle).

It is often one of the first steps in preparing surfaces for other activities.



1.1.2 Levelling Tasks

Levelling activities include:

Levelling Activities	Description
Transferring Levels/Heights for Formwork	This is an important aspect of civil construction particularly in the formation of layers or when performing concreting activities. It is also part of the process in the positioning of offset pegs or markers.
Earthwork	You will be required to check the heights or depths of fills or excavations.
Roadwork	You will be checking heights relevant to the specifications and ensuring correct "cross fall" on the surface.
Pipe-Work	You will check inlet and outlet levels to make sure the pipes are installed so that water or other fluids drain in the correct direction. You will also need to ensure the pipes are at the correct depth in trenches.
Drainage Works	Correct fall is important so that water flows downhill and to the correct catchment locations. Contour banks may be required on some jobs and must allow the proper volume of water to be carried and in the correct direction to the appropriate catchment.
Positioning Offsets	You will also be required to place offset markers or pegs relative to the work area. Often this involves the transferring of levels to cater for cross fall or to maintain a constant level based on the position of the offset.
Installing Recovery Pegs	These are used where the original levels may have been damaged or displaced and new pegs are required. This task can also include the installation of secondary benchmark pegs or control points as a protection measure in high traffic areas.

1.2 Working Safely

You must follow all safety rules and instructions when performing any work. If you are not sure about what you should do, ask your boss or supervisor. They will tell you what you need to do and how to do it in a safe way.



1.2.1 Health and Safety Rules

Every workplace has to follow laws and rules to keep everyone safe. There are 4 main types:

Law	Description
Acts	These are laws that you have to follow.
Regulations	These explain what the law means.
Codes of Practice	These are instructions on how to follow the law, based on industry standards.
Australian Standards	These tell you what the minimum requirement is for a job, product or hazard.

Some states use OHS laws, and other states use WHS laws. They both talk about the same thing but use different words or names for people. If you have any questions about safety rules you should talk to your boss or supervisor.

1.2.2 How to Keep Everyone Safe

WHS law says that all companies and workers need to keep themselves and other people safe while they work. This is called a duty of care.

To keep yourself and other workers safe you need to:

- ◆ Follow your instructions.
- ◆ Follow all workplace rules.
- ◆ Make sure all equipment is safe to use.
- ◆ Carry out your work safely.
- ◆ Report any problems.



If you think something is dangerous tell your boss or supervisor as soon as possible.

Your worksite will also have instructions for working safely including:

- ◆ Emergency procedures, including using fire fighting equipment, first aid and evacuation.
- ◆ Handling hazardous materials.
- ◆ Safe operating procedures.
- ◆ Personal protective clothing and equipment.
- ◆ Safe use of tools and equipment.



1.2.3 Site Policies and Procedures

Before starting your work you need to make sure you have access to all operations documentation for the job. This will help you to do your work in the safest way and make sure all work is compliant.

Operations documentation includes:

Site Details

The information and safety requirements of the workplace environment (where you will be working).

Hazard Details

Any hazards in the work area or related to the work. This could also include instructions on how to handle dangerous or hazardous materials.

Task Details

Instructions of what the work is or what you will be doing (this can include diagrams or plans). Also instructions on how to safely do the job.

Faulty Equipment Procedures

Isolation procedures to follow or forms to fill out.

Signage

Site signage tells you what equipment you need to have, or areas that are not safe to be in.

Emergency Procedures

Instructions on what to do in emergency situations, for example if there is a fire, accident or emergency where evacuation or first aid is needed.

Equipment and Work Instructions

Details of how to operate plant and equipment and the sequence of work to be done.

Review Questions

1.

What are the four (4) types of health and safety laws and rules?



1.

2.

3.

4.

2.

List three (3) things that may be included in 'operations documentation'.



1.

2.

3.

1.3 Work Instructions

You need to be clear about what work you will be doing. Make sure you have everything about the job written down before you start. This includes what you will be doing, how you will be doing it and what equipment you will be using.



1.3.1 Details About Your Work

Make sure you have all of the details about where you will be working. For example:



- ◆ **The Site** – Is there clear access for all equipment? Are there buildings, structures, facilities or trees in the way? What are the ground conditions like?
- ◆ **The Weather** – Is there wind, rain or other bad weather? Is it too dark?
- ◆ **Facilities and Services** – Are there power lines or other overhead or underground services to think about?
- ◆ **Traffic** – Are there people, vehicles or other equipment in the area that you need to think about? Do you need to get them moved out of the area? Do you need to set up barriers or signs?
- ◆ **Hazards** – Are there dangerous materials to work around or think about? Will you be working close to power lines or other people?

You also need to make sure you have all of the details about the kind of work you will be doing:

- ◆ **The Task** – What area is being levelled? How big is it? Does it need any special equipment?
- ◆ **Equipment** – What type of tools and equipment will be used? How big is it? How much room does it need?
- ◆ **Communications** – How are you going to communicate with other workers?
- ◆ **Procedures and Rules** – Do you need any special permits or licences? Are there site rules that affect the way you will do the work?



1.3.2 Reading and Checking Your Work Instructions



All work needs to follow worksite, environment and company safety procedures.

Procedures help to make sure that all work is done in a safe way, without damaging equipment or putting people in unsafe situations. They also help to make sure that work is done in the correct order and doesn't interrupt or get in the way of other work that is happening on the site.

Your work instructions will tell you the safest way to do the job, and the equipment that you will need to use. It is a good idea to check your work instructions with your boss or supervisor to make sure you know exactly what you need to do.

If you don't know where to get your instructions or you can't understand them, you can ask your boss or supervisor. They will tell you where to find your work instructions and explain what they mean.

1.3.3 Work Method Statements

Many worksites require a Work Method Statement before any work can start. A Work Method Statement is a list of steps that outlines how a job will be done. It also includes any hazards that occur at each step, and what you need to do about them.

These statements can also be known as Safe Work Method Statement (SWMS), Job Safety Analysis (JSA) or Safe Operating Procedure (SOP).



1.3.4 Safety Data Sheets

A Safety Data Sheet (SDS) is a detailed document outlining the risks and hazards associated with handling chemicals and other materials.

The SDS will contain details that can help you to identify:

Basic Details of the Chemical or Material	Name, type and identification number.
Hazards Associated With the Material	Whether it is flammable or corrosive.
Safe Handling and Storage Procedures	PPE to use, sealed containers or storage temperatures.
Emergency Procedures	What to do if the chemical or material gets out of hand.
Disposal Procedures	Suggestions for removing the chemical or material from the site.

It will be issued by the manufacturer and may or may not include material handling methods.

Talk to your WHS representative or supervisor if you have any questions about legislative requirements relating to your work.

1.3.5 Organising Work Activities

Organising work activities is a major component of levelling tasks because each step must be achieved before the next step can start.

You will be performing your own work activities but may also be involved with the activities of plant and machinery.

This may mean:

- ◆ Sequencing of activities.
- ◆ Booking machinery hires.
- ◆ Sourcing operators.
- ◆ Working with others onsite regarding timing issues.



When you schedule activities, you need to ensure you have a written record of what you have done and why.

Some people prefer a handwritten checklist, others a computerised diary entry. What works for you is the most important thing.



Flexibility is important when organising your work priorities to allow you to reorganise if:

- ◆ Higher priority tasks arise.
- ◆ Accidents occur.
- ◆ Weather interferes.
- ◆ There are unexpected conditions onsite.

1.3.6 Worksite Communications

It is important to coordinate your activities with other workers when you are planning for and carrying out the work to make sure everyone knows:

- ◆ The work being completed.
- ◆ How, when and where you will be operating.
- ◆ What they need to do.

All workers on site must understand their own role and the roles of others before starting work. It helps to make sure work is done safely and efficiently.





Workers you may need to coordinate with on site include:

- ◆ Supervisors and management.
- ◆ Plant and vehicle operators.
- ◆ Traffic controllers.
- ◆ Team leaders.
- ◆ Site safety personnel.
- ◆ Contractors.
- ◆ Other workers on site.

In order to communicate with others on the worksite, you may use communication equipment and methods such as:

- ◆ Two-way radio.
- ◆ Mobile phones.
- ◆ Hand signals.
- ◆ Verbal instructions.
- ◆ Site meetings.

If you are at all unsure about any aspects of communication on your worksite, re-read your work instructions or plans and speak with your supervisor.



1.3.7 Project Quality Requirements

Every civil construction project will have quality requirements. These outline when tasks need to be completed and the required standard of the work.



Your work instructions and plans or drawings will guide you, and help you to make sure you are achieving the quality standard for the project.

They can include:

- ◆ Project dimensions.
- ◆ Project tolerances.
- ◆ Standards of work.
- ◆ Material standards.

1.3.7.1 Plans, Drawings and Sketches

Some of your work instructions might be given to you in drawings and sketches. You will need to get the information out of these and use it to do your job.



Project plans and drawings give you an overview of the site, for example:

- ◆ Location of the site and earthworks in relation to the surrounding area.
- ◆ The position of structures, roads, access areas.
- ◆ Layout of drainage lines.
- ◆ Foundation details and landscaping features.

Depending on the project, drawings may be very detailed or they could be simple sketches.

Plans and drawings may include symbols, which are used to detail characteristics of the plans, and convey information to the person reading them.

Each plan will have a legend or key that explains the meaning of the symbols used. Speak with your supervisor if you need assistance in reading and understanding the plans.



1.3.8 Identify and Locate Materials for Task

Depending on the specific task you may need to organise other materials to complete the job. Check the work plans for details about the work and the end result that is needed. You can confirm this with you supervisor.

Make sure that all materials are available for you to use as part of the planning process.



Check plans, drawings and specifications for details of:

- ◆ Type of materials required for the task.
- ◆ Quantities of materials required for the task.
- ◆ Location of materials for storage and use.
- ◆ Environmental protection requirements.
- ◆ Schedules for the delivery of materials.

Materials may already be present in the work area and simply need to be shifted into position. In other cases you may need items to be delivered to the work area. Speak with your supervisor before starting the work to organise these as it may impact on other works being completed in the area.

Review Questions

3.

What details about the work area can you get from your work instructions? Provide two (2) examples.

1.

2.

4.

If you don't know where to get your instructions or you can't understand them, who should you ask?

5.

What is a Work Method Statement?

6.

What is a Safety Data Sheet?

7.

When might you be required to be flexible and reorganise your work priorities? Provide two (2) examples.

1.

2.

8.

What are three (3) techniques and equipment used to communicate with others on the worksite?

1.

2.

3.

9.

What details are outlined in project quality requirements? Provide two (2) examples.

1.

2.