Presentation Instructions

Who is this presentation for?

The trainer and learners.

What is in this Presentation?

- Course information that matches the Learner Guide content.
- Review questions and model answers.
- Slides contain summarised content, with full notes and information for the trainer, visible when the slide show is shown in "Presenter View" (see instructions on next slide).
- Use this presentation to support and reinforce the training information from the Learner Guide.

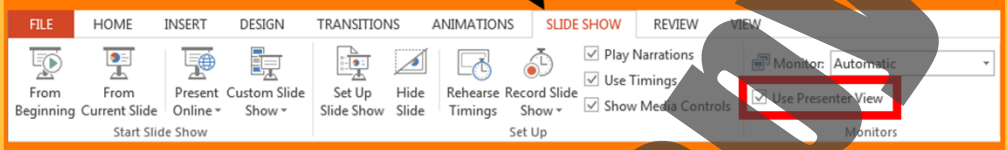
What do you need to do before you use it for the first time?

1. Rebrand the presentation.
2. Review the presentation as part of your validation process.

Instructions for Viewing in Presenter View

NOTE: This view is only applicable when the computer is connected to a second screen or a data projector.

Once the second screen/projector is connected make sure that the "Use Presenter View" box is ticked.
This is found in the "SLIDE SHOW" tab as shown below.



RIICP301E

INSTALL WATER MAINS PIPELINES

TRAINING PRESENTATION

RIGPROF

Training Presentation Sections

Click on a box to go to that section.

Section 1: Plan and Prepare for Work

Section 2: Set Out and Excavate Area

Section 3: Install and Test Mains Pipeline

Section 1:
Plan and Prepare for Work

1.1 Introduction

These materials are based on the National Unit of Competency **RIICPL301E Install Water Mains Pipelines.**

You will learn about:

- Planning and preparing for installing pipelines.
- Setting out and excavating the trenches for the pipelines.
- Installing the pipelines.
- Testing the pipeline systems.
- Clearing up the work area.

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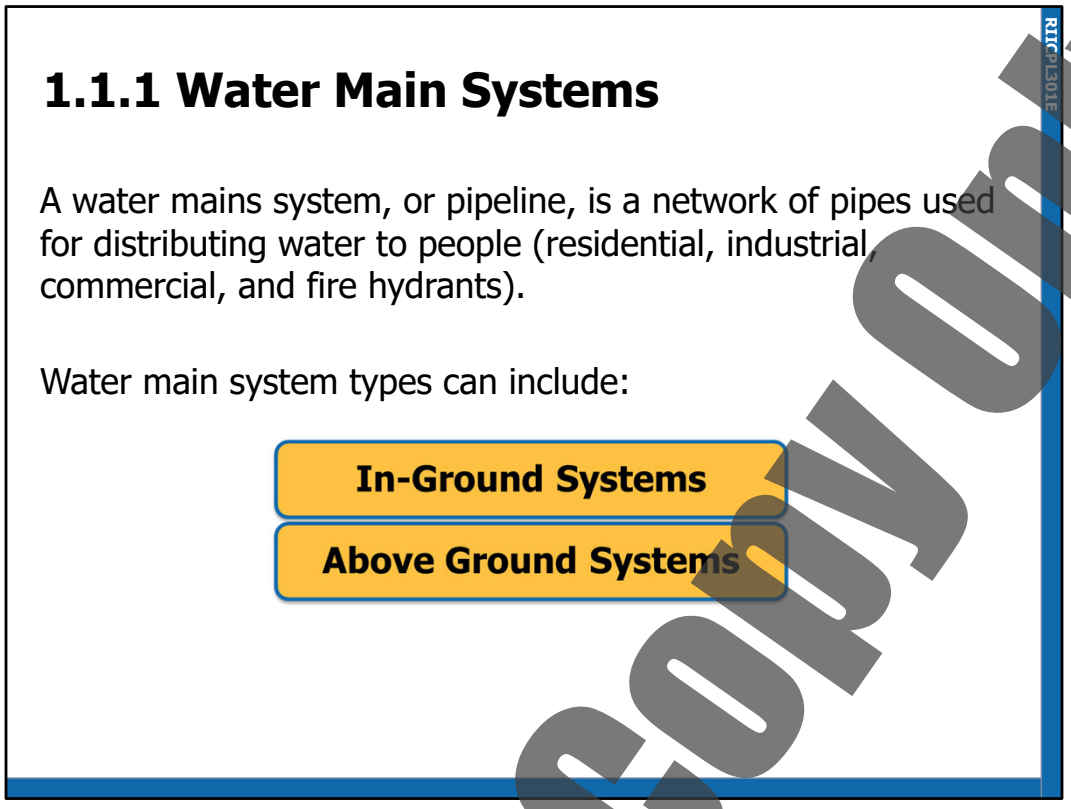

A water mains system, or pipeline, is a network of pipes used for distributing water to people (residential, industrial, commercial, and fire hydrants).

Water main system types can include:

In Ground Systems – Combined with pressure, these make up the most common systems installed in Australia.

Above Ground Systems – These are less common. Sometimes used when retro-fitting a mains system to small, remote rural settlements.

1.1.1 Water Main Systems

Systems are normally delivered by pressurised systems. The system may be pressurised by gravity or mechanical methods such as pumps and compressed air.

These systems are vital for regulated supply of water from its storage location to consumers. Installation of these systems must meet the design requirements otherwise the system may have incorrect pressure.

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1.1.1 Water Main Systems

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1.1.2 Construction of Pipelines

Water mains are constructed based on the principle of water reticulation. Water reticulation is the process of moving water or other fluids from one location to another. It is the primary focus of any mains pipe system.

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Water reticulation systems may include:

- Urban drinking water supplies.
- Regional water source management and transfer.
- Recycled wastewater systems.
- The collection and distribution of treated wastewater into drinking water supplies.

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1.1.3 Installation Procedures

The installation procedures for pipelines will be outlined in the work instructions and job specifications.

The specific installation procedures will vary depending on your location, what materials you are using, and the local and state government requirements that must be met.

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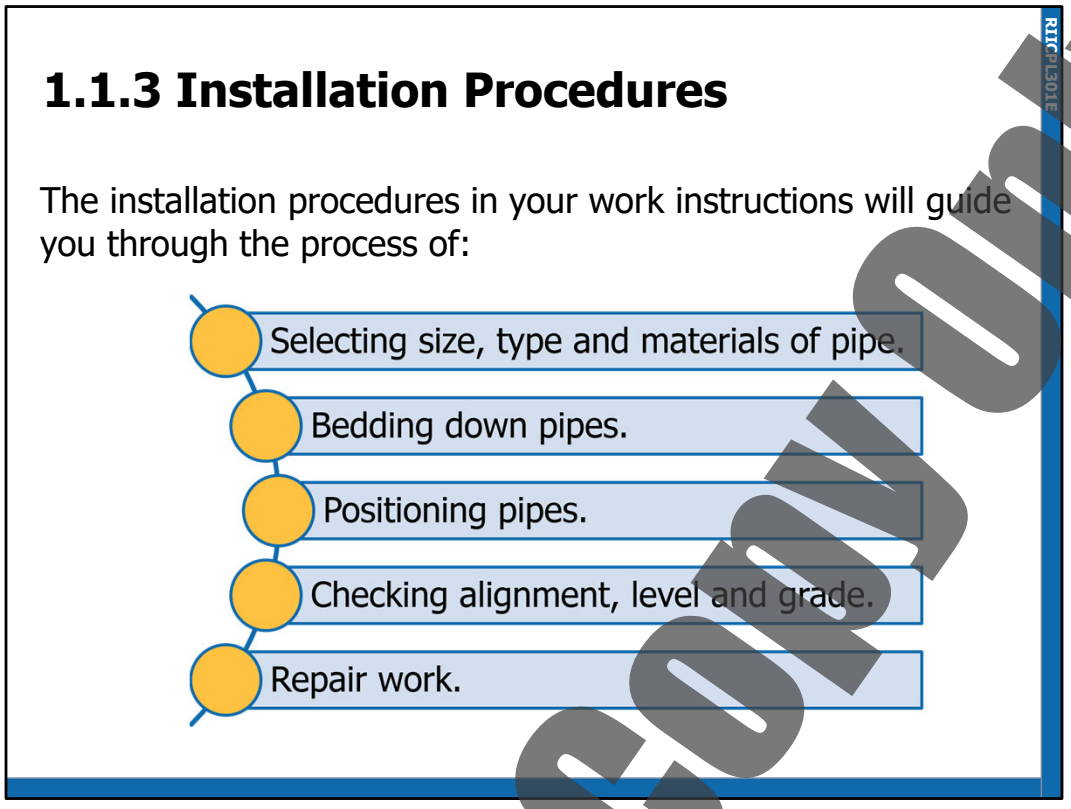

The installation procedures in your work instructions will guide you through the process of:

- Selecting size, type and materials of pipe.
- Bedding down pipes.
- Positioning pipes.
- Checking alignment, level and grade.
- Repair work.

1.1.3 Installation Procedures

Depending on the worksite and design requirements, the type of system being installed and the materials involved, different methods of installation may be used. These methods may include:

- Open trenching.
- Direct pipe laying.
- Direct boring.
- Raised pipeline.

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Continued…

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Direct Pipe Laying	Involves specific pipe laying plant ripping a line then inserting the flexible pipeline into the ground. This method is very efficient in soft ground and long distances can be covered in each section. It is not ideal for very hard ground, which can damage the machinery.

Installation Method and Explanation *Continued…*

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Continued…

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Direct Boring	Direct boring uses a direct drill system to drill the hole and insert the pipe or conduit in one process. This method is very useful for short sections or in ground that may not respond well to excavation and could collapse. Sometimes direct boring is done in urban areas to minimise the disruption and inconvenience to traffic and pedestrians.

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Installation Method and Explanation *Continued…*

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Section 1 Review Questions

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Answer may include:

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