

Guidance Note

Drainage plumbing diagrams

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1. Background

A drainage plumbing diagram (DPD) is a diagrammatic representation of drainage plumbing work within a property. They were known previously as 'as-constructed diagrams', 'as-cons' or 'flimsies.'

Drainage plumbing diagrams are regularly used by homeowners, licensed plumbing contractors and others to determine the layout of drainage plumbing on a property. Knowing the layout of drainage plumbing can assist in:

- identifying where additional connections to existing drainage plumbing can be made;
- locating drainage connection points for survey-strata lots;
- ensuring that new buildings or extensions do not interfere with existing drainage plumbing;
- ensuring that any excavation works do not disturb the drainage plumbing;
- the repair of drainage pipework; and
- clearing blocked drains.

2. Submitting drainage plumbing diagrams

Licensed plumbing contractors are required to submit a drainage plumbing diagram when they are the responsible person for drainage plumbing work that involves the installation, alteration or extension of drainage plumbing including drainage plumbing services for survey-strata lots. A penalty may be applied for failing to provide a compliant drainage plumbing diagram.

The drainage plumbing diagram must be submitted to the Plumbers Licensing Board (the Board) with the related certificate of compliance within 5 working days after the work is completed.

Hint:

Drainage plumbing is any pipework installed below ground and therefore needs to be shown on a drainage plumbing diagram. This includes pipework to floor waste gullies, disconnector and overflow relief gullies and trade waste traps.

Where a drainage plumbing diagram is not lodged, the Board may request the licensed plumbing contractor responsible for the work provide the drainage plumbing diagram.

The licensed plumbing contractor is required to provide a copy of the certificate of compliance to the property owner. It is considered good practice to provide a copy of the drainage plumbing diagram to the owner at the same time.

When installing drainage plumbing for the purposes of providing connection points to survey-strata lots, a copy of the drainage plumbing diagram must be provided to the property owner or occupier. Licensed plumbing contractors may also retain a copy for their own records.

3. Information to be included on drainage plumbing diagrams

There are minimum requirements that apply to drainage plumbing diagrams. These requirements relate to the use of abbreviations, datum points, orientation, street frontage and mandatory information fields.

3.1. Abbreviations

When completing drainage plumbing diagrams, licensed plumbing contractors must choose abbreviations that are commonly used and understood by the industry. The Board has developed the following list of abbreviations to be used when referring to certain fixtures and features of the drainage plumbing.

Table 1: Approved abbreviations

Name	Abbreviation
Aerobic treatment unit	ATU
Basin	B
Bath	Bath
Boundary trap	BT
Connection point for survey-strata lot	CP
Disconnecter gully	DG
Floor waste gully	FWG
Inspection opening	IO
Inspection shaft rising shaft	ISRS
Inspection shaft square on back	ISSOB
Overflow relief gully	ORG
Raised inspection opening	RIO
Reflux valve	RV
Pump discharge line	PDL
Rising shaft	RS
Sanitary stack	SS
Septic tank	ST
Shower	Shr
Sink	S
Sink (pot or utility)	PS
Trough (ablution)	Tr.(A)
Trough (laundry)	Tr.(L)
Urinal	Ur.
Vent pipe	VP
Vacuum sewer	VS
Water closet pan	WC
Wet well	WW

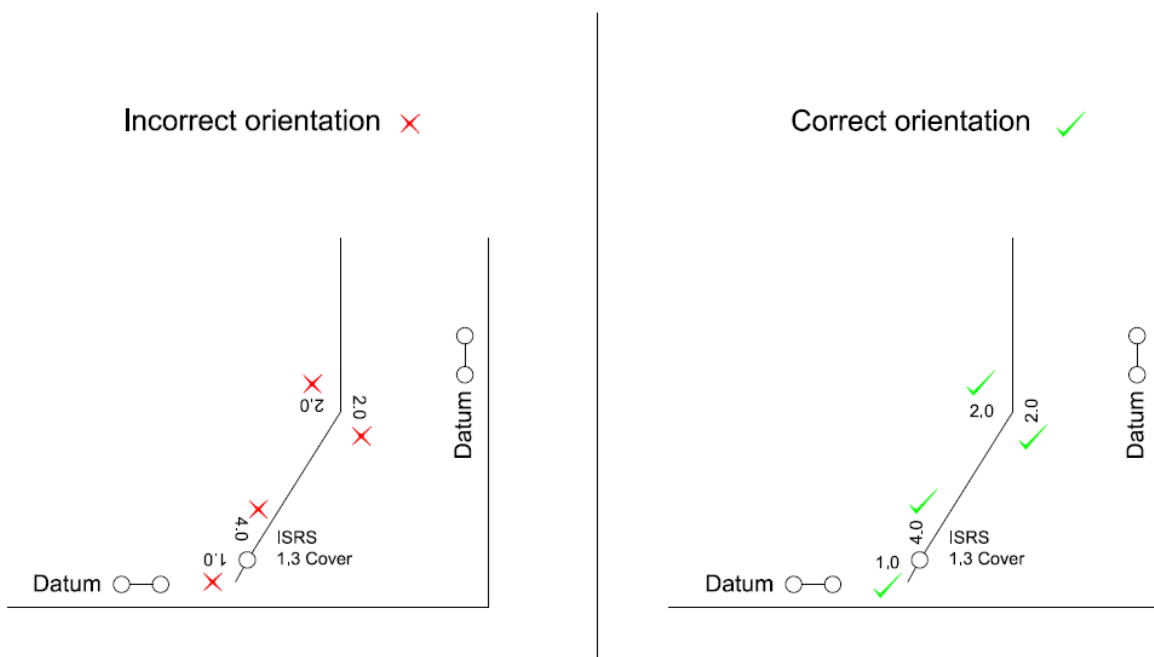
3.2. Datum points

Datum points are fixed starting points used to locate the following features on a drainage plumbing diagram:

- inspection openings;
- rising shafts;
- inspection shafts;
- reflux valves;
- boundary traps;
- connection points for survey strata lots; and
- location of drainage and changes of direction.

To provide for accurate reading, each drainage plumbing diagram needs to include at least two (2) datum points.

As the starting point, datum points are to be indicated by **0-0**. Measurements from both the horizontal datum point and the vertical datum point axes for each of the required measurements are to be read away from the relevant datum point (i.e. the orientation of these measurements should be the same orientation used for the datum points).



Measurements away from datum points are required to be recorded in metres to at least one decimal place. Where possible, points on the property boundary shall be used for datum points. Where this is not practicable, for example where the drainage plumbing work is a significant distance from the property boundary, buildings may be used.

See the **Example drainage plumbing diagram** on page 7 for the detailed use of datum points and the direction of measurements.

3.3. Direction and street frontage

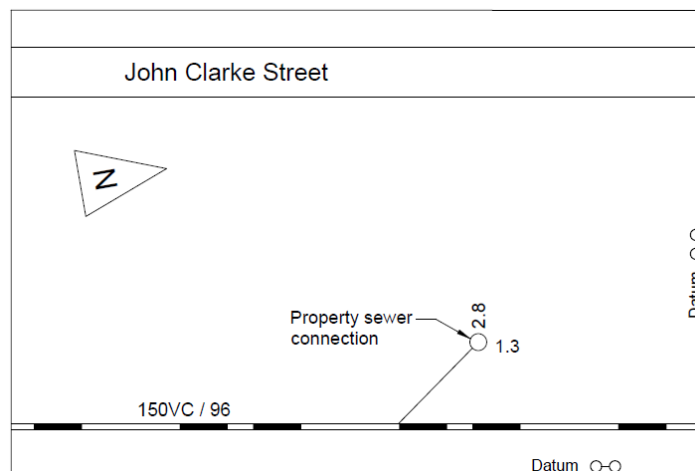
Drainage plumbing diagrams must include an indication of the north direction in relation to the property and the street name that fronts the building must also be shown. This may need to be two (2) streets for corner blocks.

3.4 New sewer junction cut-in/property sewer connection (in and up)

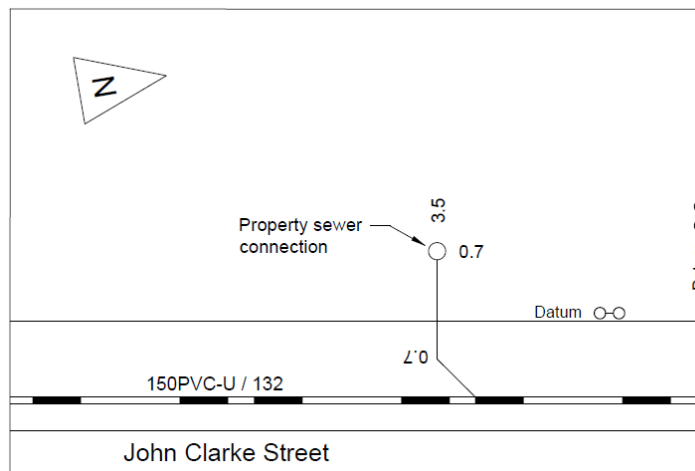
In addition to the requirements in item 3 above, drainage plumbing diagrams for new sewer junctions cut into existing main sewers, see examples below, must show the following:

- the location of the pipework forming the new property sewer connection (in and up) including measurements from datum points showing the termination of the pipework;
- any change of direction, including measurements from datum points; and
- the location of the main sewer.

Licensed plumbing contractors must also submit a sewer junction details form to the water services provider. The Water Corporation's sewer junction details form can be found on the following website link: [Water Corporation – Sewer junctions](#)



Required information with main sewer inside the property



Required information with main sewer outside the property

3.5 General information

Details relating to drainage plumbing work and associated information must be included on the drainage plumbing diagram in order to ensure they are suitable for future use.

This information includes:

- The property address.
- The certificate of compliance number for the completed drainage plumbing.
- The name and PL number of the licensed plumbing contractor responsible for the drainage plumbing.
- A signed and dated statement certifying that the plan accurately shows the layout and dimensions of the drainage plumbing installed by or under the general direction and control of the licensed plumbing contractor.

To assist licensed plumbing contractors in meeting these requirements, a template incorporating these fields plus space for drawing the drainage plumbing diagram has been developed. This template is available at [Information and obligations for licensed plumbers](#)

3.6 Other requirements

It is a general requirement that drainage plumbing diagrams be provided in a manner that is fit for purpose to assist in the identification of the layout of drainage plumbing in the future.

To achieve this drainage plumbing diagrams must be:

- legible;
- complete;
- accurate; and
- in proportion where possible.

Hint:

Drainage plumbing work underneath a building is required to be drawn on a drainage plumbing diagram to show the layout of pipework only and measurements are not required. Drainage plumbing work external to the building must have measurements shown as per part 3.2.

Drainage diagrams should be provided as a one-sided A3 or A4 document on white paper using a black ink or ball point pen. Clear photographic images are also acceptable. Where it is necessary to provide a drainage plumbing diagram in a different format to the above, including electronically, the licensed plumbing contractor should contact the Board on 6251 1377 to discuss options.

4. Requesting a drainage plumbing diagram

Website information has been developed to enable anyone who needs to determine the layout of drainage plumbing to obtain drainage plumbing diagrams. This information is available at [Information and obligations for licensed plumbers](#)

5. Further information

For issues with the DPD website or payment, or for further information on submitting or requesting DPDs, please contact Building and Energy at dpd@dmirs.wa.gov.au or on 6251 1301.

Department of Energy, Mines, Industry Regulation and Safety Plumbers Licensing Board				PIN 	
				DRAINAGE PLUMBING DIAGRAM <small>Please print clearly using a black ink or ball-point pen. Please complete in accordance with the 'Drainage Plumbing Diagram Guidance Notes'.</small>	
Lot 	Strata-Lot 	Unit 	Street-No 	Certificate-No 	
Street-Name 				PL-Licence-No 	
Suburb 			Postcode 	Plumber's-Name 	
Building-Name 				Owner's-Name 	
<small>I certify that this drainage plumbing diagram shows the layout and dimensions of the drainage plumbing constructed by me or under my general direction and control at the above address.</small>					
Signature: 			Diagram Date: 		

The diagram shows a property layout with various drainage fixtures and their connections to the street. Key features include:

- Fixtures and Connections:**
 - RIO:** 9.0, 23.1
 - VP:** Vertical Pipe
 - WC:** Water Closet
 - Tr.(L):** Trap (Left)
 - S:** Sink
 - B:** Bath
 - ORG:** Overhead Water Tank
 - WC:** Water Closet (lower level)
 - B:** Bath (lower level)
 - FWG:** Floor Waste Gully
 - Shr:** Shower
 - No. 20:** Manhole
 - ISRS:** In-Situ Resin Sewer
 - 1.3 Cover:** 1.3m Cover
- Dimensions and Levels:**
 - Vertical levels: 23.1, 3.0, 17.0, 15.0, 8.0, 4.0, 3.0, 1.0
 - Horizontal dimensions: 5.4, 3.0, 3.5, 3.5, 5.0, 1.0
- Orientation:** North arrow pointing up.
- Street:** Clarke Street at the bottom.
- Datum:** Indicated at the bottom right corner.

EXAMPLE DRAINAGE PLUMBING DIAGRAM