

Developer Services Guidance

Advice for builders
and developers for
larger size water
connections.



Contents

This booklet provides advice on what to do if you require a water supply for your new development. The information is suitable for developers/ house builders and explains what you need to do to apply for a water connection as well as important information on how to lay water pipes.

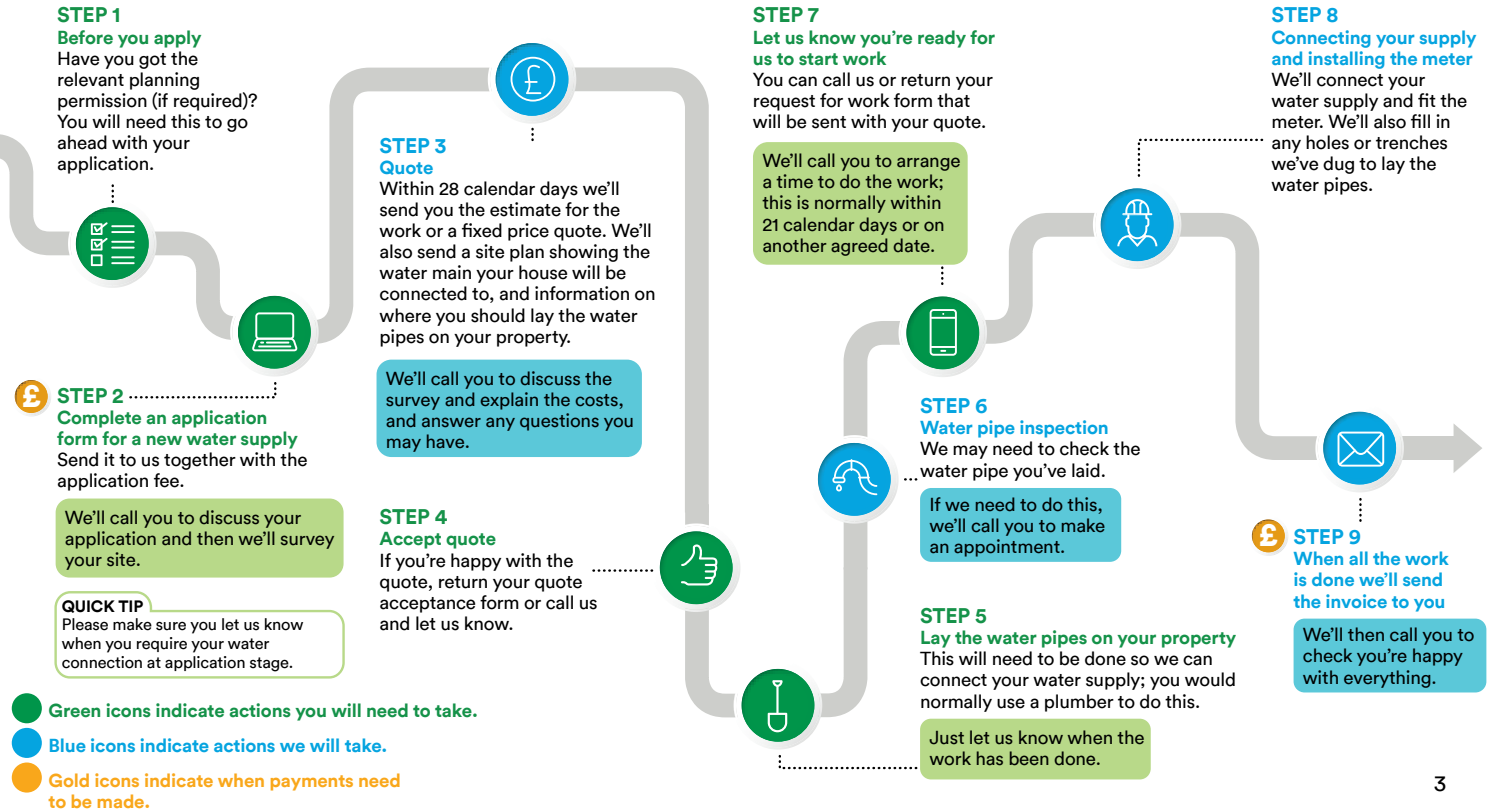
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We understand how important it is to get the water supply at the right time in your development

Here is a quick step-by-step guide to help make sure your project runs smoothly



How long can a water connection take?

Timescales for connection

On the right there are some examples of common timescales for a water connection – but it's really important that you complete some key tasks before we can plan your connection in.

This booklet also includes a more detailed guide on how to lay your pipework and advice on ensuring your internal fixtures and fittings are correct.

1 Application

Apply for your new water connection and pay your application fee. We will then carry out a survey on site, send you a quotation and offer a visit from one of our inspectors to give you some on-site expert advice.

2 Accept your quotation

Once we issue your quote, please check that everything is correct and return your signed acceptance as soon as possible.

3 Lay your pipework

Before we can connect your water supply you'll need to complete all work required on site. Please reference your specification drawings and quote report when carrying out these works.



21 days

Once we've received all of the information outlined in your quote report, we'll make the connection and install the meters. We aim to do this within 21 calendar days, subject to any traffic management restrictions which will be detailed in your quote.



Three months

We may need to close the road

Closing the road allows us to safely dig to reach our water main. We need to provide the local highway authority notice of our work and be granted a permit to close the road, which can take three months.

It is important that you let us know as soon as possible when you will need your connection by, so we can start advanced planning with the highways authority to prevent any delays to your development.



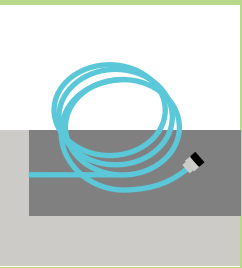
Laying your pipework

Some important information when laying your pipework

Quick tip!

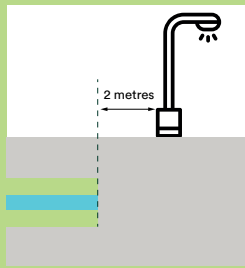
Please make sure you refer to your spec drawings and quote before laying your pipework.

Laying your pipework



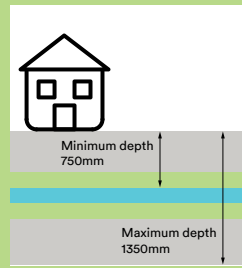
Using blue polyethylene (mdpe/pe) or barrier pipe - lay a continuous unjointed length of pipework to the boundary with the public highway ensuring there is a sufficient length of pipe to allow for an unjointed connection to the host main unless instructed otherwise.

Surrounding areas



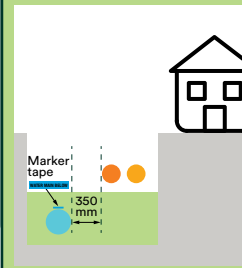
Please make sure you refer to your quote to ensure you are bringing the pipework out to the correct point of connection. You also need to make sure that the pipework is at least 2 metres from lampposts, utility poles, etc.

Trenches



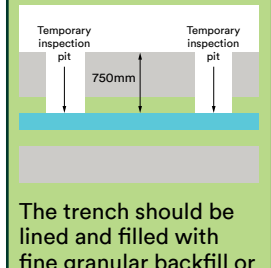
Minimum depth from top of pipe to finished ground level 750mm/2ft 6in. Maximum depth 1350mm/4ft 6in.

Trenches



Trench should be free from debris and wide enough (350mm) to accommodate the pipework it is hosting together with any other utility services sharing the same trench. Please see G4.15 R4.15 in Schedule 2 of the Water Regulations for more information.

Backfilling your trench



The trench should be lined and filled with fine granular backfill or selected soft earth free from rubble and waste. The trench should remain open until it has been inspected.

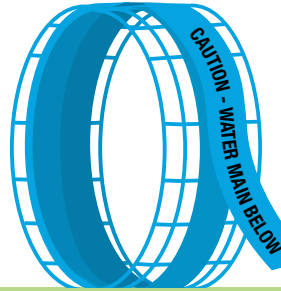
Laying your pipework continued

Some important information when laying your pipework

Quick tip!

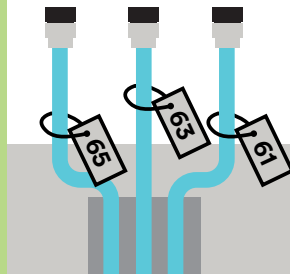
All service pipe installations must be flushed and free from debris before the meter is installed.

Tracing mesh



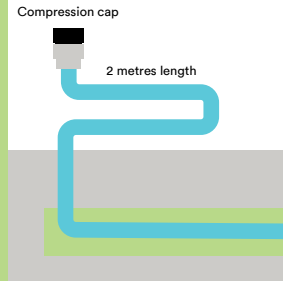
The mesh must be visible on site at inspection, and is to be installed approximately 350mm below finished ground level.

Labelling your pipework



The service pipe must be clearly labelled at the boundary with the correct plot number/property number. This is necessary in order to ensure correct billing information.

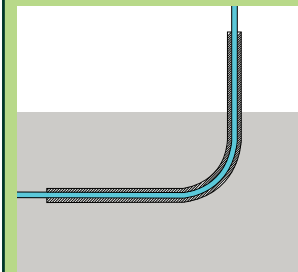
End of pipework



The supply pipe must be sealed with a mechanical watertight stop end to prevent the ingress of debris.

Important: Tape, bungs or plastic bags are not an acceptable seal due to risk of contamination.

Ducting and insulating



Pipework must be ducted and suitably insulated as it enters the property. Pipes entering buildings at the approved depth should be passed through a duct and the ends of the duct sealed, to prevent the ingress of gas, fluids, insects or vermin into the building. There is more information about this on the next page.

Ducting and insulating your pipework

There may be scenarios where you need to insulate your pipework before you duct it.

It is essential that pipes entering buildings below ground level are sealed against the entry of gas, fluids, insects or vermin, as shown in diagrams 1, 2 and 3.

Where the incoming pipe enters the building:

Ducts (usually solid plastic)

- Pipes entering buildings at the approved depth should be passed through a solid duct (not land drainage) and the ends of the duct sealed, to prevent the ingress of gas, fluids, insects or vermin into the building.
- Ducting should be sized to accommodate the service pipe with insulation. If the duct is extended away from the footings of the building it should either be blue or identified with blue pipe ID tape, to be spiral wrapped around the duct for the length of the installation.
- Joints/fittings cannot be used on the supply pipe when inside a duct.
- The duct can be sealed with plastic caps or any readily removable sealant that is not oil based.
- 25mm and 32mm insulated supply pipes can ordinarily fit into a 100mm (4 inch) duct. 63mm can ordinarily fit into a 150mm (6 inch duct) with a slow radius bend. If no bend is required, i.e. cellar/basement, then a 100mm duct should be sufficient.
- Ducts should be sized to allow pipes to be readily removable for maintenance and repair.
- Requirements may vary due to differing wall designs and construction methods.

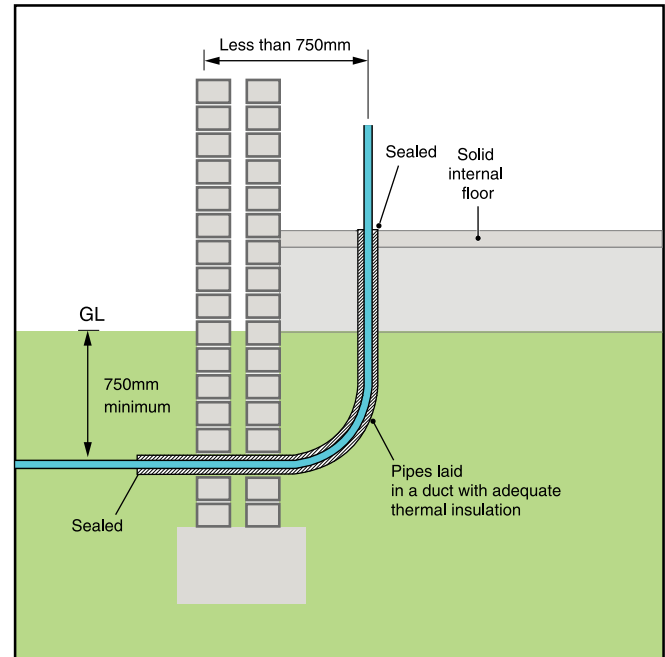


Diagram 1:

Vertical pipe in duct less than 750mm from external face of wall. Insulation is required.

Ducting and insulating your pipework continued

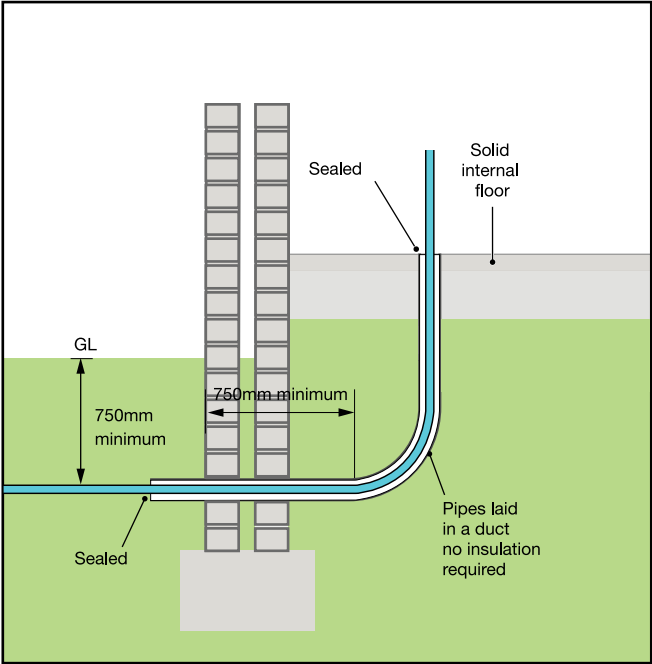


Diagram 2:
Vertical pipe in duct greater than 750mm from external face of wall.

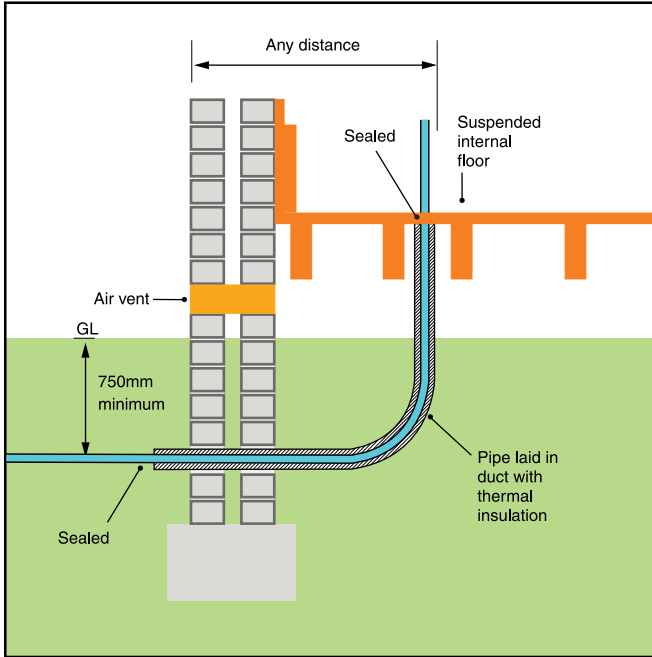


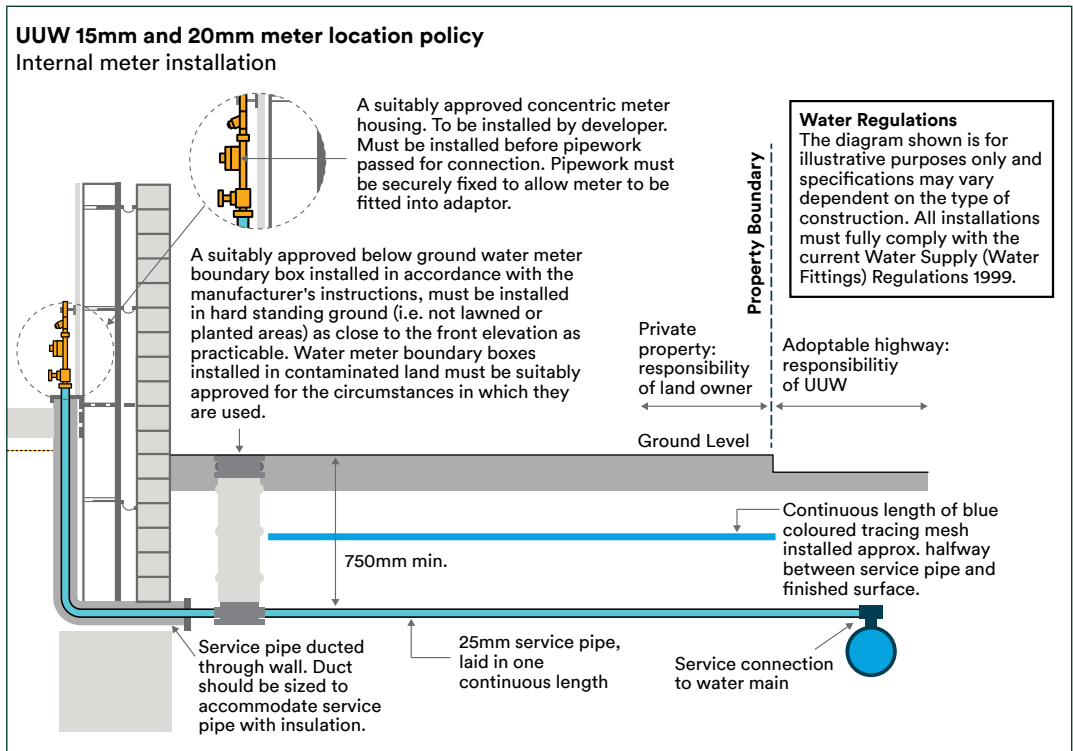
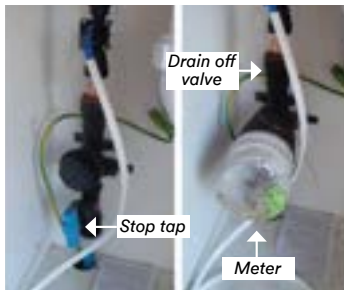
Diagram 3:
Vertical pipe in duct any distance from the external face of wall where entry to building is through a suspended floor with air void below (insulation is always required).

Internal meter installation

The water meter should be located within the property at the point of entry.

You must install a suitably approved concentric meter housing on the supply pipe at the point of entry, directly above the stop tap. The meter housing must be able to accommodate the installation of a class D meter. Please note: some housings may require a conversion insert. Check with your supplier.

The pipework must be securely fixed to allow the meter to be screwed into the meter housing. A gap of 160mm x 110mm must be left clear directly around the adaptor to accommodate the Meter housing.



External meter installation – wall-mounted box

The water meter is located within an approved meter box that is *mounted directly* to the wall.

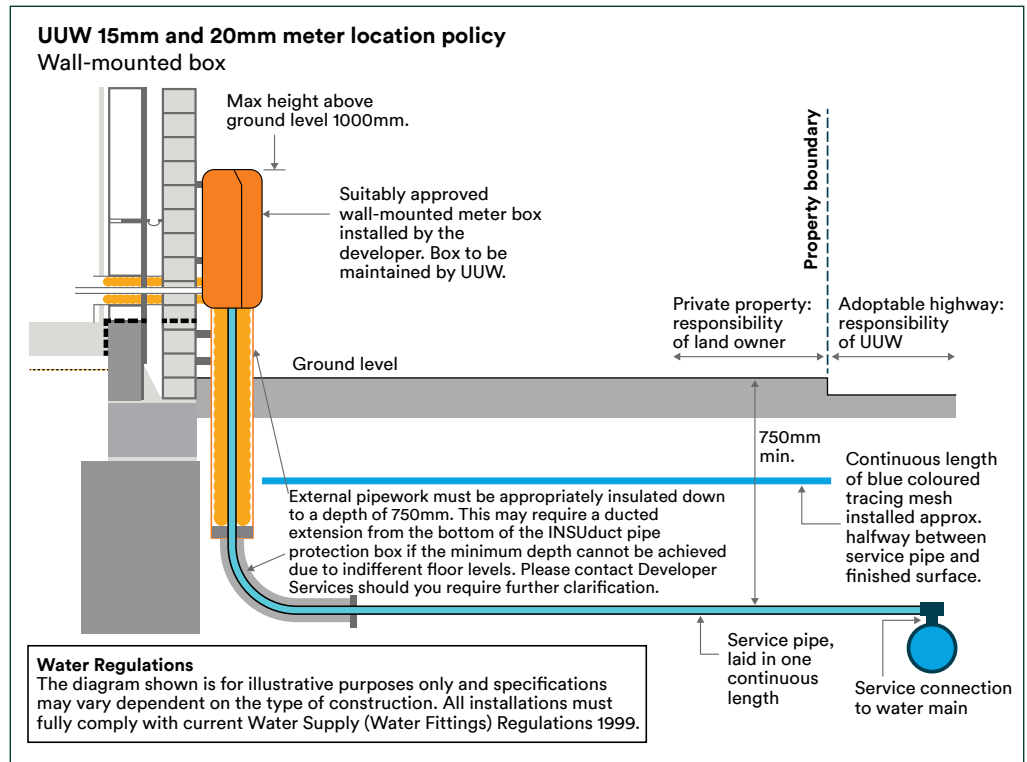
The meter box can be installed on any elevation of the property and must comply with the specific manufacturer's installation specifications.

No *additional* external control is required.

Ensure **on-wall box** with insulated ducting is installed on the external elevation of the property and an insulated duct through the wall. Pipework to be ducted and appropriately insulated down to 750mm.

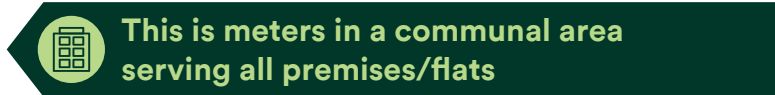


Wall mount box in situ and insuduct



Multi occupancy premises

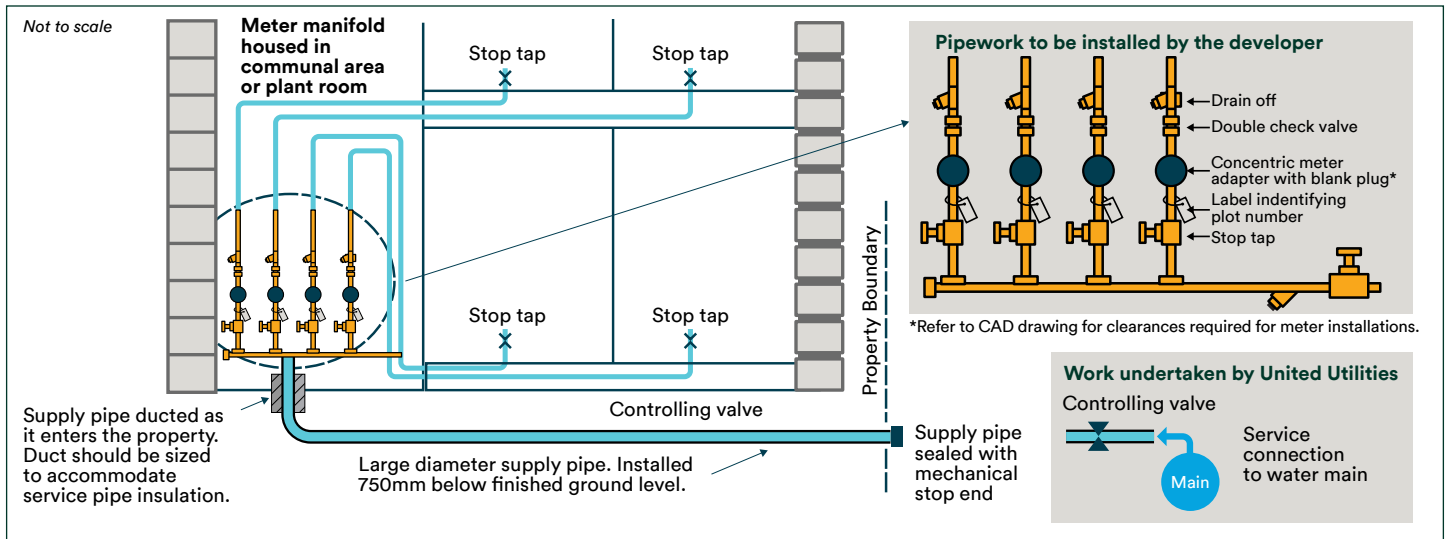
Meters on manifold in communal area



All of the items specified in the previous slides must comply. In addition, the following considerations must be observed:

Secondary backflow protection is required on all branches taken from a common supply pipe. For example, self-contained flats supplied from a communal manifold.

A **suitably approved back-flow preventer** must be fitted to each branch from the common supply. This is to protect one property being contaminated from another. This information is normally shown on the CAD drawing as per below.



Multi occupancy premises

Meters for each individual flat/apartment



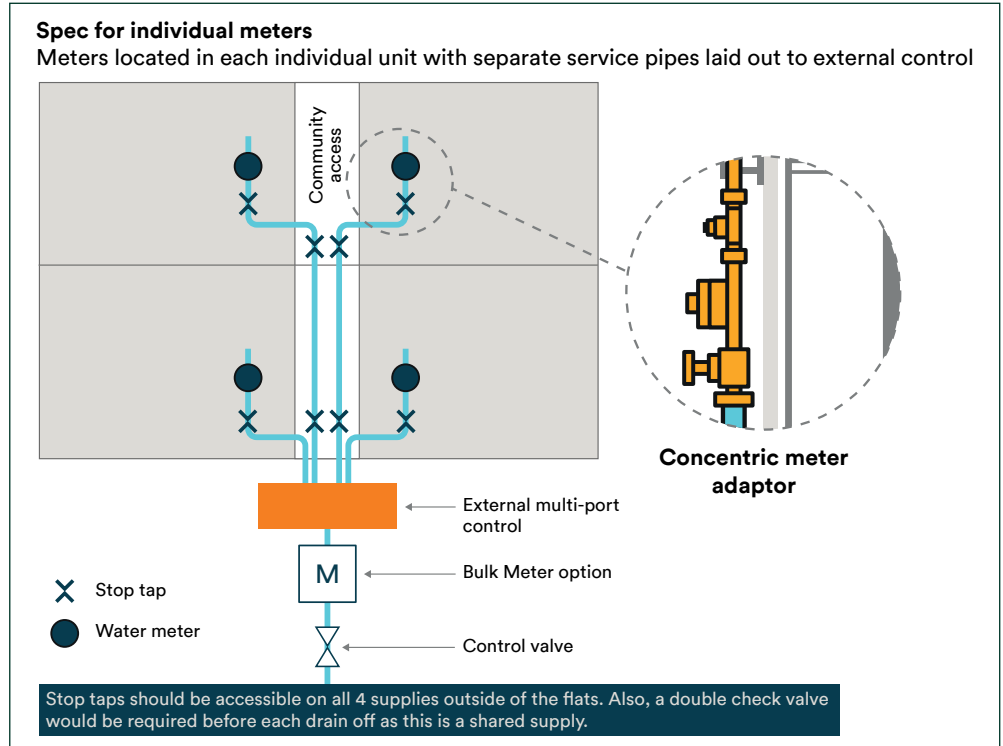
This is meters in a communal area serving all premises/flats

Internal Pipe Runs

The incoming supply and manifold set up must be installed in a common access area and all pipework routed to avoid passing from one occupancy through to another. Uuw specifications and conditions of supply must be adhered to.

All work carried out and materials used must be in accordance with the Water Supply (Water Fittings) Regulations 1999.

The following (overpage) are examples of pipe-work arrangements in multi-occupancy premises showing meter location and stop tap positions.



Multi occupancy meters

Bulk meters

A Bulk Meter agreement must be signed, initially between United Utilities and the developer before the connection is made, and later between United Utilities and a Management Company or responsible body. The developer must accept all water charges, including surface water and highways drainage, until such time that an agreement with the responsible management company is in place.

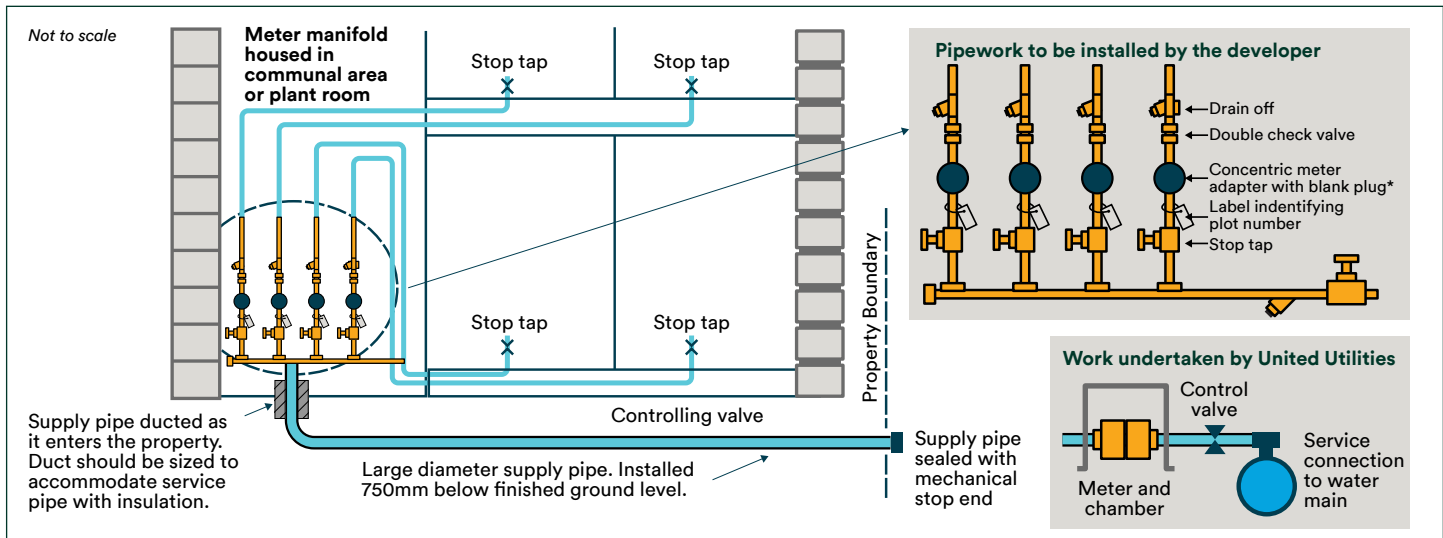
Important: You must also ensure that there is a meter provision in each flat/unit etc for future use in case the premises were ever to be sold.

Meter table for meter size at space above.

- 50mm meter = 1500mm of unjointed pipe
- 80mm meter = 2000mm of unjointed pipe
- 100mm meter = 2500mm of unjointed pipe
- 150mm meter = 3500mm of unjointed pipe

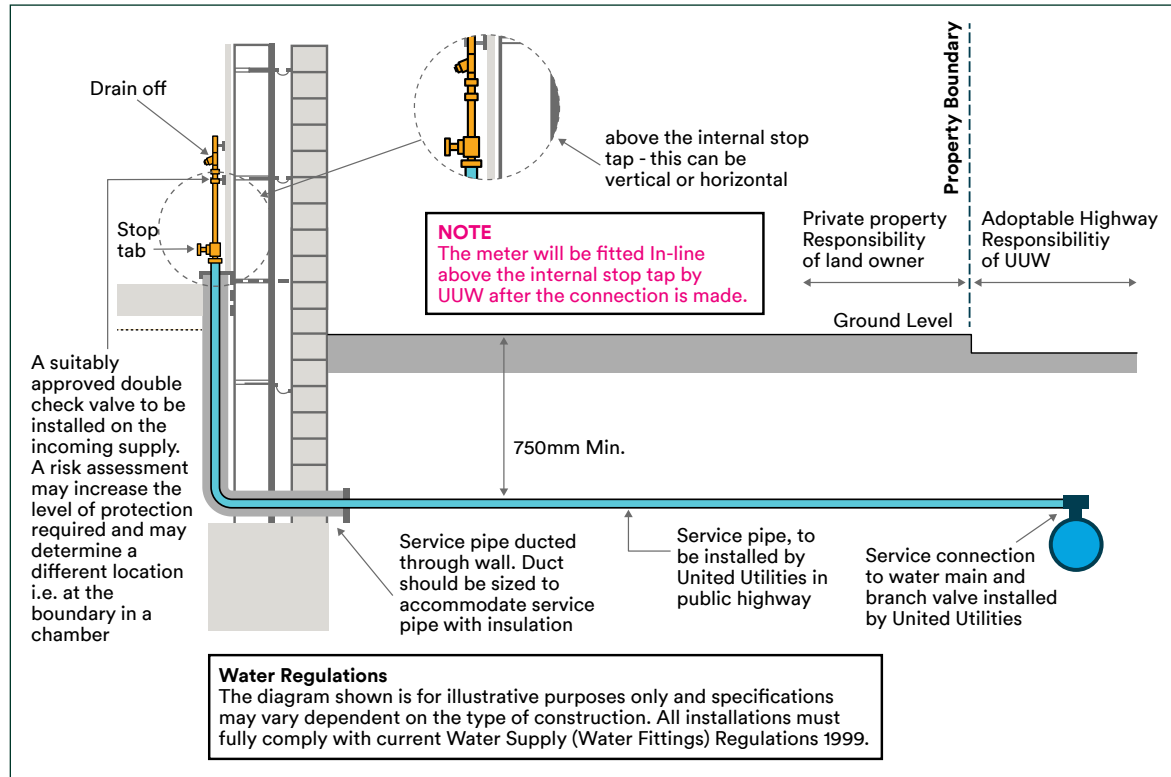
Internal 25mm & 40mm inline meter installation requirements

In order for our meter installers to install your meter you must leave a minimum of **500mm** of 'unjointed' pipe between the first internal stop-tap the next fitting i.e. double check valve.

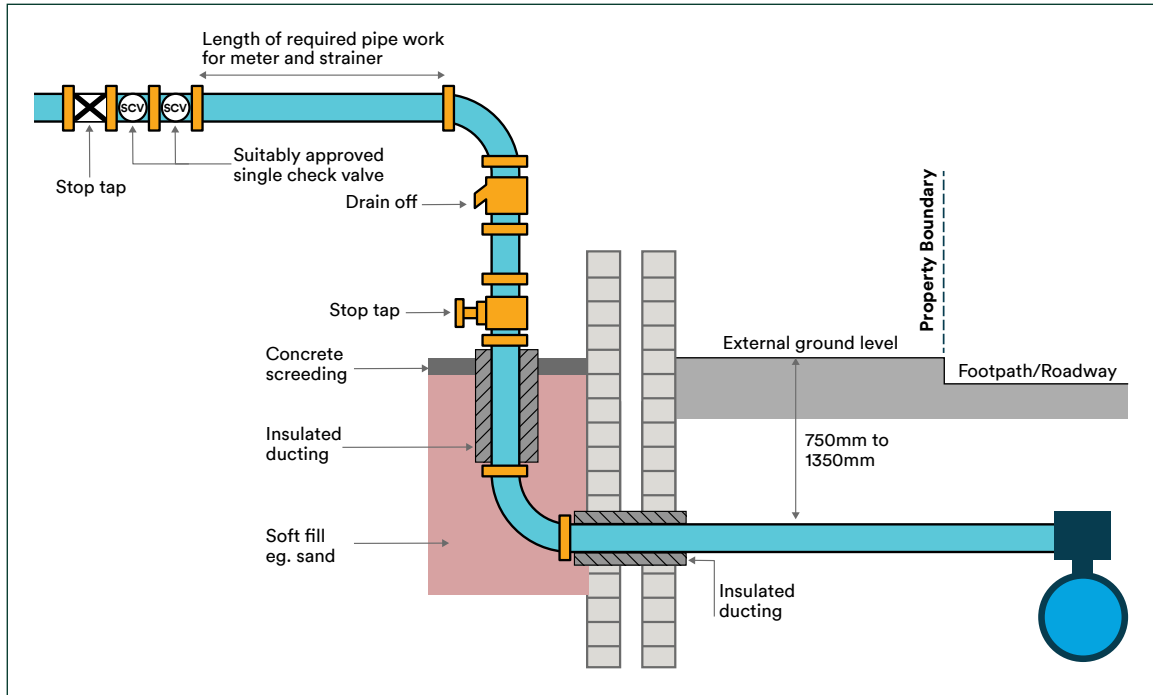


U UW 63mm commercial connection with 25mm/40mm in-line internal meter

Commercial meters



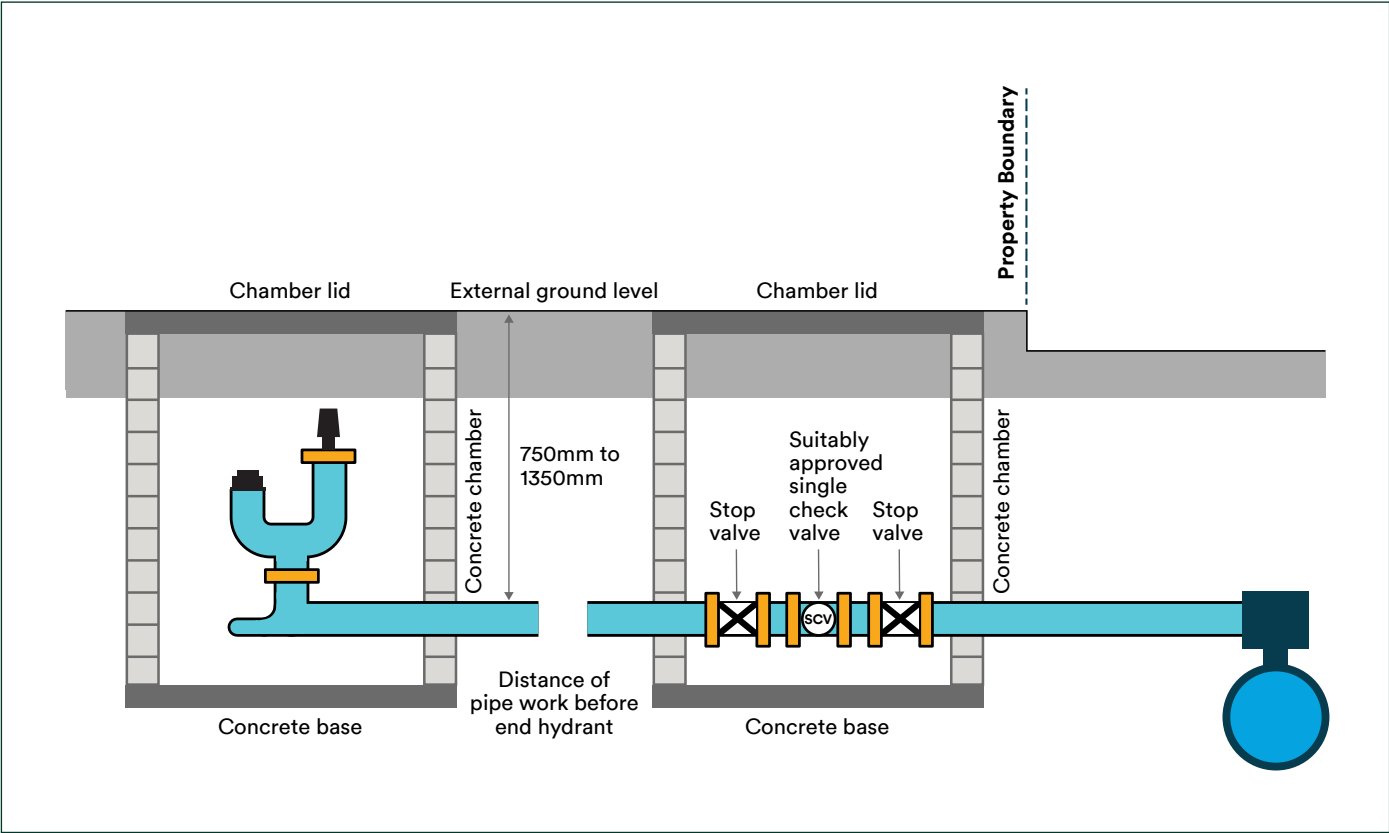
Commercial connection with a 50mm and above in-line internal meter



See below for the 'required pipe distances' required for each meter size (mm)

- 50mm meter = 1500mm of unjointed pipe
- 80mm meter = 2000mm of unjointed pipe
- 100mm meter = 2500mm of unjointed pipe
- 150mm meter = 3500mm of unjointed pipe

Fire main specification



Contaminated land

Domestic/commercial



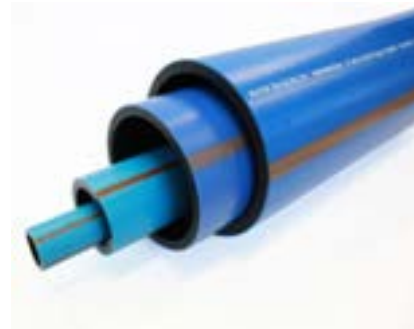
If the site has shown to be contaminated, you are required to lay services to protect the water supplies from ingress of any contaminants.

All pipework, fittings (including boundary/meter boxes) and materials must be suitably approved for the circumstances in which they are being used.

Installers are advised to check with **United Utilities Developer Services** before starting work.

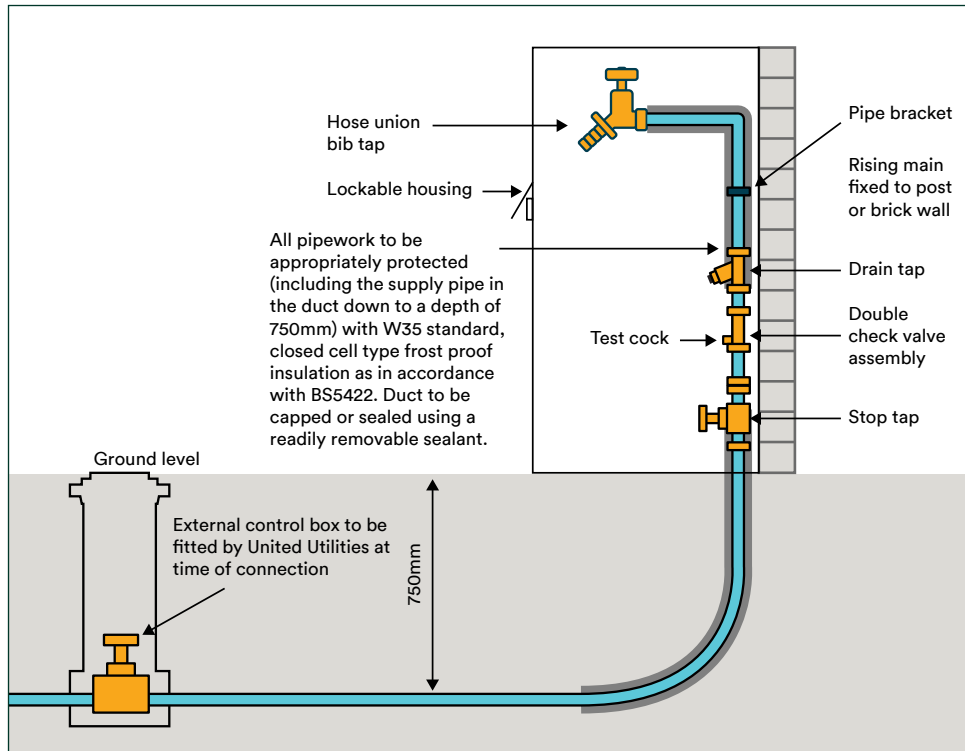


Barrier pipe may also be used in circumstances where the land is not contaminated. Please ensure you refer to your quote and report as this will confirm if barrier pipe is required.



Example of barrier pipe (note brown stripe)

Temporary building supplies and standpipes



The supply pipe may not enter a building, therefore a suitable bracket with a lockable box surrounding the supply must be provided. The supply should incorporate the fittings detailed in the diagram on the left.



This is an example of a lockable box referenced in the spec drawing on the left.

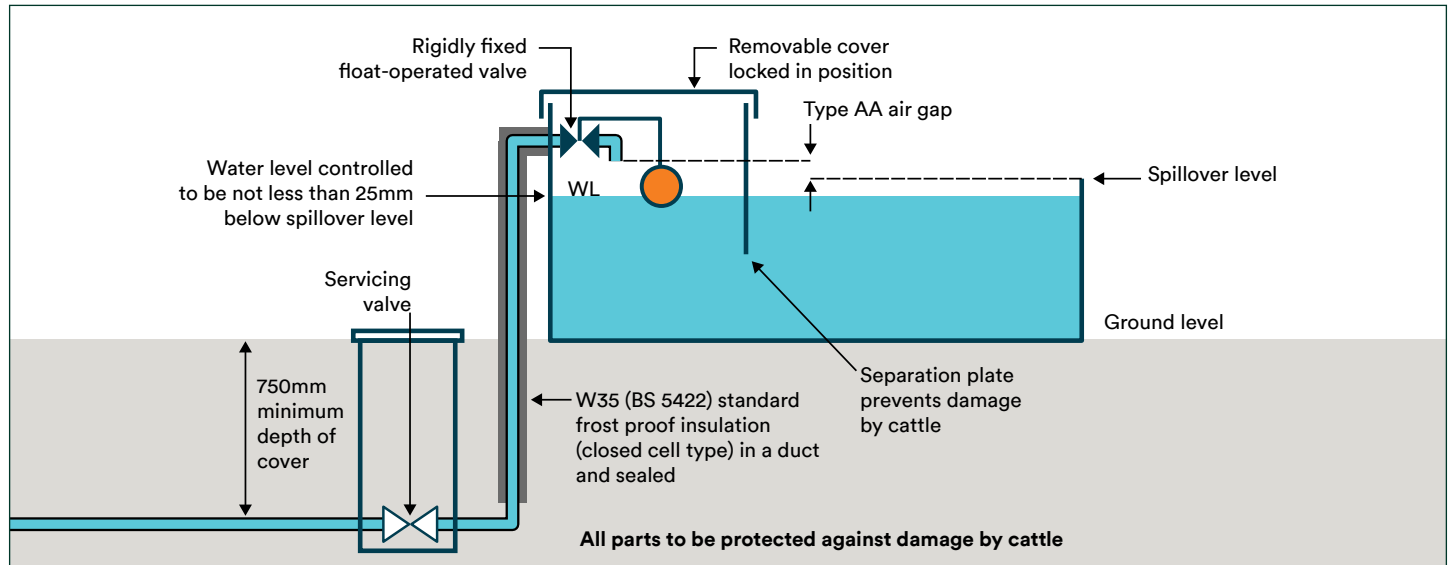
Agricultural/animal drinking water trough

Domestic/commercial



Boundary and point of entry

- Every pipe supplying a drinking trough or bowl must be fitted with a float-operated valve or no other less effective device.
- The inlet valve must be securely fixed to the trough and the water inlet point must have an AA air gap or the equivalent fluid category 5 backflow protection.
- The supply pipe must be protected from frost and damage from cattle, etc. and have a servicing valve fitted, as close as practicable, to the float-operated valve for maintenance purposes.



Fire supplies

Commercial

There are a number of important factors when installing a commercial fire supply.

We cannot guarantee water for fire fighting purposes, we therefore recommend the installation of a storage cistern and booster set.

Fire supply pipes 63mm and above are to be hydraulically pressure tested in accordance with BS EN 806 (eg Type A or Type B for plastic supply pipes).

Here are number of key requirements for when you are installing your commercial fire supply.

- Depth to be a minimum 750mm and a maximum 1350mm
- Pipe ID tape with direction of flow arrows to be “spiral wrapped” around the pipe in compliance with BS1710:2014 – Colour banding green blue red blue green for fire supplies directly connected to the mains cold water supply (MCWS)
- For a fire supply to a sprinkler tank the pipe ID colour banding for pipework upstream of the sprinkler tank is green blue red blue green (with direction of flow and supply to infill tank stencilled onto the ID tape). Downstream of the sprinkler tank the pipe ID colour banding for pipework will be green blue black red black blue green (with direction of flow and sprinkler main tank fed)
- Pipe ID tape to be colourfast (polyethelene)

- Warning tape (warning of water pipe below) to be laid along the whole length of the tape installation on top of approx. 300mm of back fill. Can use red tap with fire supply below stencilled on to it
- Suitably approved backflow preventer (SCV) to be installed as close as practicable to the boundary and recommend a suitably approved isolation valve (IV) installed either side of the single check valve to allow for maintenance and repair. Only one acceptable backflow preventer is available (as of Jan 2021) for 63mm pipes (unless the backflow preventer is downsized but this may affect flow rates) and above and this is a KIWA approved Socla EA453
- If the fire supply is a training supply used by fire stations it will be necessary to fit a suitably approved double check valve at the boundary instead of a single check valve
- Test points on all underground backflow preventers to be blanked off using the manufacturer’s blanking kit
- Back flow preventer to be housed in a chamber big enough to allow access for maintenance and repair
- Hydraulic pressure test and chlorination of pipework required for 63mm connections and above.



Spiral wrapped pipe with ID marker tape



300mm of backfill and install warning tape



1200mm x 700mm chamber with isolation valves either side



Watts Ocean FC Series backflow preventer together



Test points on a SOCLA EA453



Test points blanked off on a SOCLA EA453

Inspecting your pipework

For pipes 32mm and below

If you use a non-WIAPS (Water Industry Approved Plumber Scheme) certified plumber we'll need to inspect all of the pipes you've laid on your site.

If you do use a WIAPS certified plumber then you will need to supply a certificate for the pipework on your site, which should state the depth, material, pipe diameter and location of the pipe.

For pipes 63mm and above

We must inspect all pipework even if you've used a WIAPS approved plumber to do the work.

Non-WIAPs

Our inspector will check that your pipework and meter provision is laid to the spec on your quote report. On the right are examples of things we will inspect on the day. Note – depending on your connection type there may be a few more requirements that will need passing off but this will be discussed with your quote.

- Have you laid the correct size pipework?
- Is the pipework the correct material for the ground conditions?
- Number of supplies
- Is the pipework laid at the right depth?
- Has the pipework been brought out to the correct point of connection?
- Is there sufficient pipework coiled up at the boundary and is it capped off with a mechanical stop end?
- Is the meter manifold installed (internal at point of entry or wall mounted box)?
- Is the external control box installed?

Quick tip!

If you have used a WIAPS plumber for pipes 32mm and below, this is an example of the certificate we will require before the connection is carried out.

What information do we need from you?

Postal address

Why do we need you to provide us with local authority confirmation of new postal address?

This is to ensure we can set up new billing accounts accurately and efficiently.

Details requesting postal addresses for your development should be made by way of application to your local authority.

Your developments local authority can be found at www.gov.uk/find-local-council

Once received, your development's postal confirmation will be on a letterheaded document with your local authority displayed at the header of the page.

This document should be sent to Developer Services before your water connection is carried out.

If you have more than one plot it would be really helpful if you could send us the site layout, including plot numbers, to make sure that we allocate the right meter details to the right address.

When DON'T we need a postal address?

We don't need a postal if it's not a property/business that is receiving post, such as a trough, or irrigation supply for allotments, for example.

Example of what we can accept as proof of postal address:

Plot	Water Meter	Billing Meter	Plot Number	Meter Name	Area Code
1				Church Street	0145 351
2				Church Street	0145 351
3				Church Street	0145 351
4				Church Street	0145 351
5				Church Street	0145 351
6				Church Street	0145 351
7				Church Street	0145 351
8				Church Street	0145 351
9				Church Street	0145 351
10				Church Street	0145 351
12				Park Road	0145 351
13				Park Road	0145 351
14				Park Road	0145 351
15				Park Road	0145 351
16				Park Road	0145 351
17				Park Road	0145 351
18				Park Road	0145 351

Pressure testing your pipework

Hydraulic pressure test

Why do you need to carry out a pressure test on pipework 63mm and above?

An hydraulic pressure test is required to evidence that the newly installed system is secure and no risks of leakage when we connect your new supply.

This is required on the larger size connections due to the risk element due to the size and pressure.

This is to protect your development in case anything isn't secured or connected as it should be.

When do you need to pressure test?

This needs to be completed before we carry out the connection and before you chlorinate the pipework.

What is required?

Testing of the new incoming service up to the first internal stop tap.

Prior to the commencement of any test the pipework shall be charged with wholesome water and all air removed.

All testing methods should be completed in a manner that will not permit the contamination of the public water main with pressurised water.

For systems that do NOT contain any plastic materials (that is rigid materials such as copper or stainless steel) the requirement shall be satisfactory if, the whole of the system, under examination, is pressurised to the required value (10 bar) by pumping, after which it is then isolated for the period of one hour, and the pressure does not fall below that of the test pressure.

Pressure test results returned should say ok to connect to public water supply.

Quick Tip!

Please refer to the IGN 4-01-03
Water Industry information and
guidance note on pressure testing
pipes and fittings.
[https://www.water.org.uk/
wp-content/uploads/2018/11/
IGN-4-01-03-31-
Nov-2015.pdf](https://www.water.org.uk/wp-content/uploads/2018/11/IGN-4-01-03-31-Nov-2015.pdf)

When are you ready for connection?

An important checklist that you will need to complete before you are ready for your water connection

- Is each service pipe labelled to show the plot that it serves?
- Has the postal address been confirmed with the local authority?
- Have you supplied a WIAPS certificate for the pipework or is it with United Utilities to inspect the pipework?
- Are the site and service pipe accessible with no scaffolding or skips in the vicinity?
- If there is a wall around the outside perimeter of the property, has this been tunnelled under to allow the connection pipe to be fed through? (Only if applicable.)
- Is your meter provision in place as per your quotation and spec.?
- Have you provided the contact name, email address and phone number of the site representative who we will liaise with?

FAQs

Frequently asked questions



What is service pipe labelling?

Where new connections are made to the main, all service pipes must be clearly labelled with the relevant plot/property number. Labelling is also required for internal pipework where multiple internal water meters are to be fitted. This is necessary in order to ensure correct billing information.

When will my water meter be fitted?

For 25mm standard connections, your water meter will be fitted at the same time as the connection is made. On multi-occupancy premises, your meters will be fitted after the connection is made.

What is traffic management?

The Traffic Management Act was introduced in 2004 to tackle congestion and disruption on the road network. The Act places a duty on local traffic authorities to keep traffic flowing on their road network by giving them additional tools to better manage parking policies, moving traffic enforcement and the coordination of street works.

Should you wish to find out more information on the Traffic Management Act, please visit www.dft.gov.uk

Who is responsible for the maintenance of the service pipe from the property to the water main in the footpath?

UUW will not adopt the service pipe. It is UUW policy that the customer/developer is responsible for the service pipe up to the boundary of the property and UUW is responsible from the boundary to the water main. The location of the water meter does not define the boundary of responsibility, and never has. After a reasonable period of time, UUW will assume responsibility for the maintenance of the external control and meter carrier.

Where do I source materials from?

We recommend any local, national or web-based plumbing merchants.

What are contestable and non-contestable charges?

Contestable work is work or services that either the relevant undertaker or persons other than the relevant undertaker may do or provide.

Non-contestable work – work which may only be undertaken by United Utilities.

This is to ensure health and safety regulations are met and to ensure work is done correctly to meet compliance standards.

FAQs

Frequently asked questions



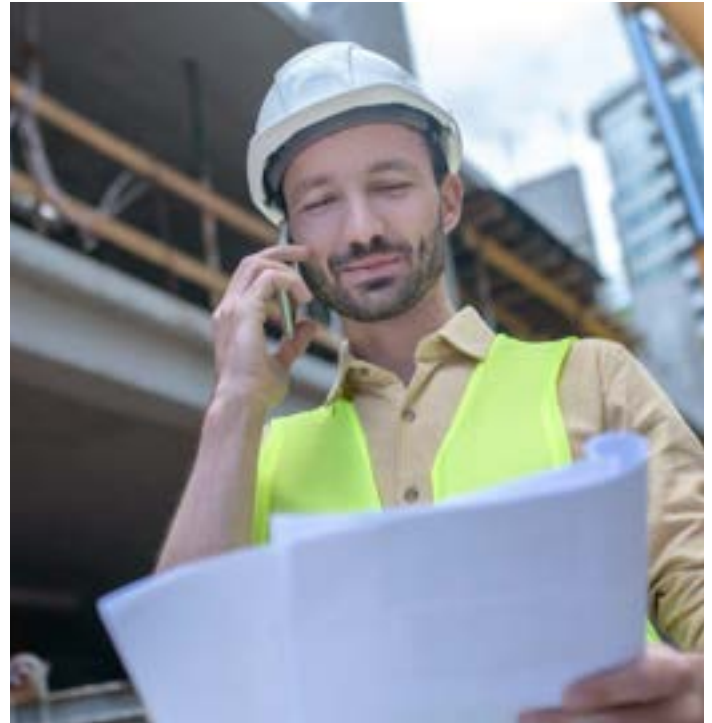
What are infrastructure charges?

This charge is payable to United Utilities when a property becomes connected to the water and sewerage systems for the first time for domestic use. This means any use of water for individual personal needs and for household purposes, such as drinking, bathing, heating, cooking, non-commercial gardening, and sanitation. It is because every new connection imposes an additional demand on the capacity of the water and wastewater network, which may need to be upsized as a result. These fixed charges represent a contribution towards the capital expenditure in meeting that new demand and are shown in our charges scheme.

What is income offset?

Income offset is a payment made by us to a customer who is building a property or applying for a new connection where clean water infrastructure is charged. This is recognition of the future income that we will receive from billing the property.

This is for new water connections for domestic purposes (including water used for domestic purposes at non-household premises). Where clean water infrastructure is charged in this instance, income offset is applicable.



FAQs

Frequently asked questions



What will my water pressure be?

The mains water pressure in the United Utilities area varies due to elevation, and daily and seasonal fluctuations, but is generally between approximately 15m (1.5 bar) and 60m (6.0 bar). This is static pressure and will be reduced inside the building depending on the length and size of the service pipe and the rate of flow. A standard 25mm outside diameter service pipe will normally provide 15-20 litres per minute.

Mains pressure of 1.5 Bar is deemed adequate for all normal domestic situations but developers should satisfy themselves that it is sufficient for their purposes, particularly in buildings above 2 storeys, including fire sprinkler systems. Most domestic water-using appliances will have the manufacturer's design and operating instructions. Developers must consider the minimum and maximum pressure requirements, and additional protection to avoid possible damage to fittings and appliances. Some appliances, notably combination boilers, may not perform well at pressures below 1.5 bar.

The Water Industry Act 1991 Section 65 (2) states “*Nothing shall require a water undertaker to provide a supply of water at a height greater than that to which it will flow by gravitation through its mains from the service reservoir or tank from which that supply is taken*”, therefore, if you feel that the elevation of your property from the connection point may affect your supply, you may need to install a pump and tank system at your expense. We would advise you to obtain advice from a plumber for this.



We're here if you need us...

Developer Services contact details



Website: www.unitedutilities.com/builders-developers



Call us: **0345 072 6067**



Send us an email at: DeveloperServicesWater@uuplc.co.uk

Other useful contact numbers

Water or wastewater query

0345 672 3723

- Got a burst pipe, blocked drain or sewer?
- Worried about the colour of your tap water or water pressure?
- Our team can help, 24 hours a day

I don't have a water meter

0345 672 2888

If you don't have a water meter and need help with your bill or water account.

I have a water meter

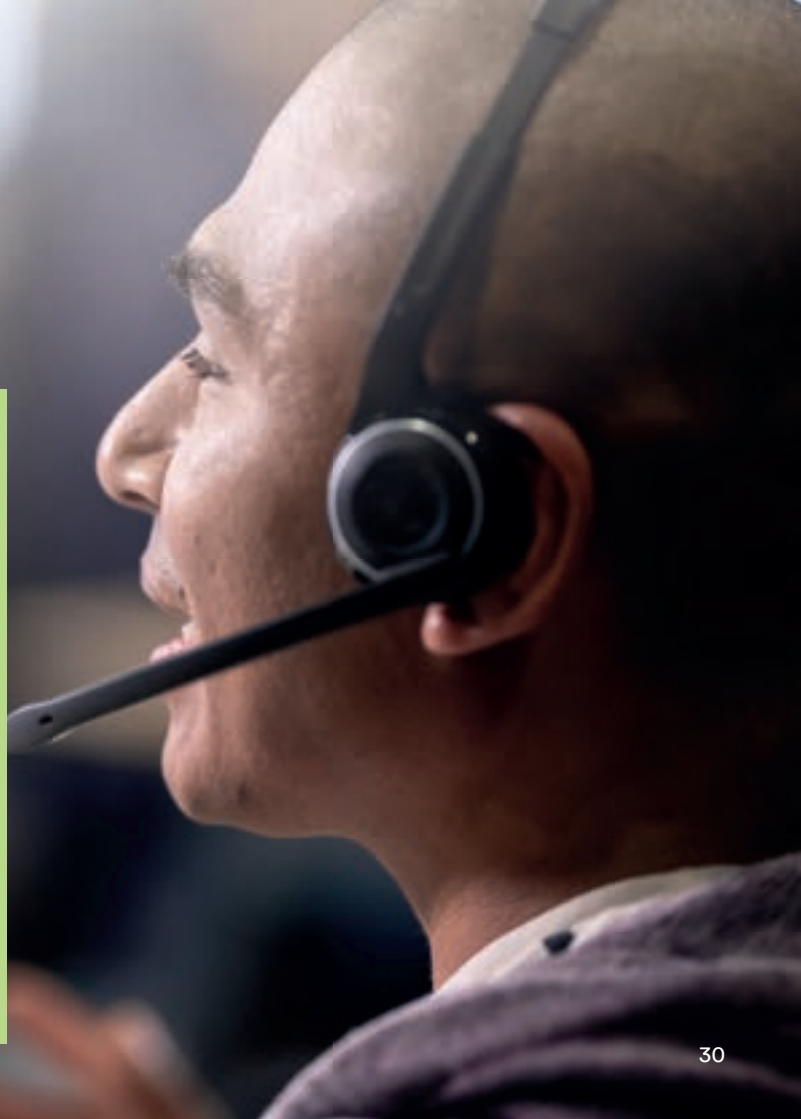
0345 672 2999

If you have a water meter and need help with your bill or water account.

Ringling from abroad?

+44 207 197 0197

If you're ringing from abroad.



Your feedback is important to us

We're here to help

We are confident that you will be in safe hands throughout with your Case Manager and Developer Services Inspector and Construction Co-ordinator, but if at any time you feel like things aren't quite going to plan, or you have any feedback about your water connection experience, please just drop us an email at **DeveloperFeedback@uuplc.co.uk** and one of our management team will be in touch with you to discuss this further.

Wow awards

If you've received great customer service from one of our employees, we want to know about it. We want to improve the service we provide to you and believe that recognising the efforts of our employees is the key to providing amazing customer service.

You can nominate any of our employees at:
unitedutilities.thewowawards.co.uk/nominate



Thank you for doing business with us



Water for the North West