



A SITE MANAGER'S GUIDE TO...

NEW WATER MAINS AND
SERVICE CONNECTIONS
ON NEW DEVELOPMENTS

- 03 **Contact details for your development**
- 04 **Section One - Health & Safety**
- 05 **Section Two - Water mains**
- 05 Water main construction process
- 06 Pre commencement meeting
- 06 Site preparation and commencement of main laying
- 07 Testing and chlorination process
- 08 Post construction sign off
- 08 Fire hydrants
 - Use of fire hydrants
 - Fire hydrants on new water mains
- 10 **Section Three - Service connections**
- 11 Specification for underground services
- 11 Position and installation of boundary boxes
- 12 Installing wall boxes
- 13 Water Regulations and approved plumbers/contractors
- 13 Location of water service stop valves and meters within blocks of flats or apartments
- 14 Water services in contaminated ground
- 14 Manifold connections
- 14 Temporary building supplies
- 14 Requesting your service connections
- 16 Our levels of service
- 16 Chlorination of service pipes
- 16 Post connection damage
- 17 **Section Four - Water reuse systems, rainwater harvesting and greywater systems**
- 19 **Section Five - Occupancy of new properties**

The following Developer Services staff have been assigned to your development

DESIGNER

Name: _____

Direct telephone number: _____

Email address: _____

The Designer is responsible for the design, costing and progression of your new water main on your new development.

PROJECT ENGINEER

Name: _____

Mobile number: _____

Email address: _____

The Project Engineer is responsible for organising, supervision of construction and commissioning of your new main.

CONNECTIONS TEAM

If you have any queries regarding the service connections please contact our Connections Team on **0345 60 66 087**, option 2, then option 1

Anglian Water Services Limited
 Developer Services
 PO Box 495
 Huntingdon
 PE29 6YY

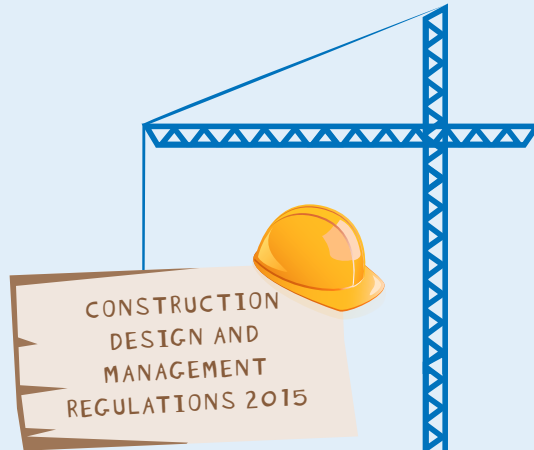
Email: connections@anglianwater.co.uk
www.anglianwater.co.uk

SECTION ONE – HEALTH & SAFETY

Construction Design and Management (CDM) Regulations 2015

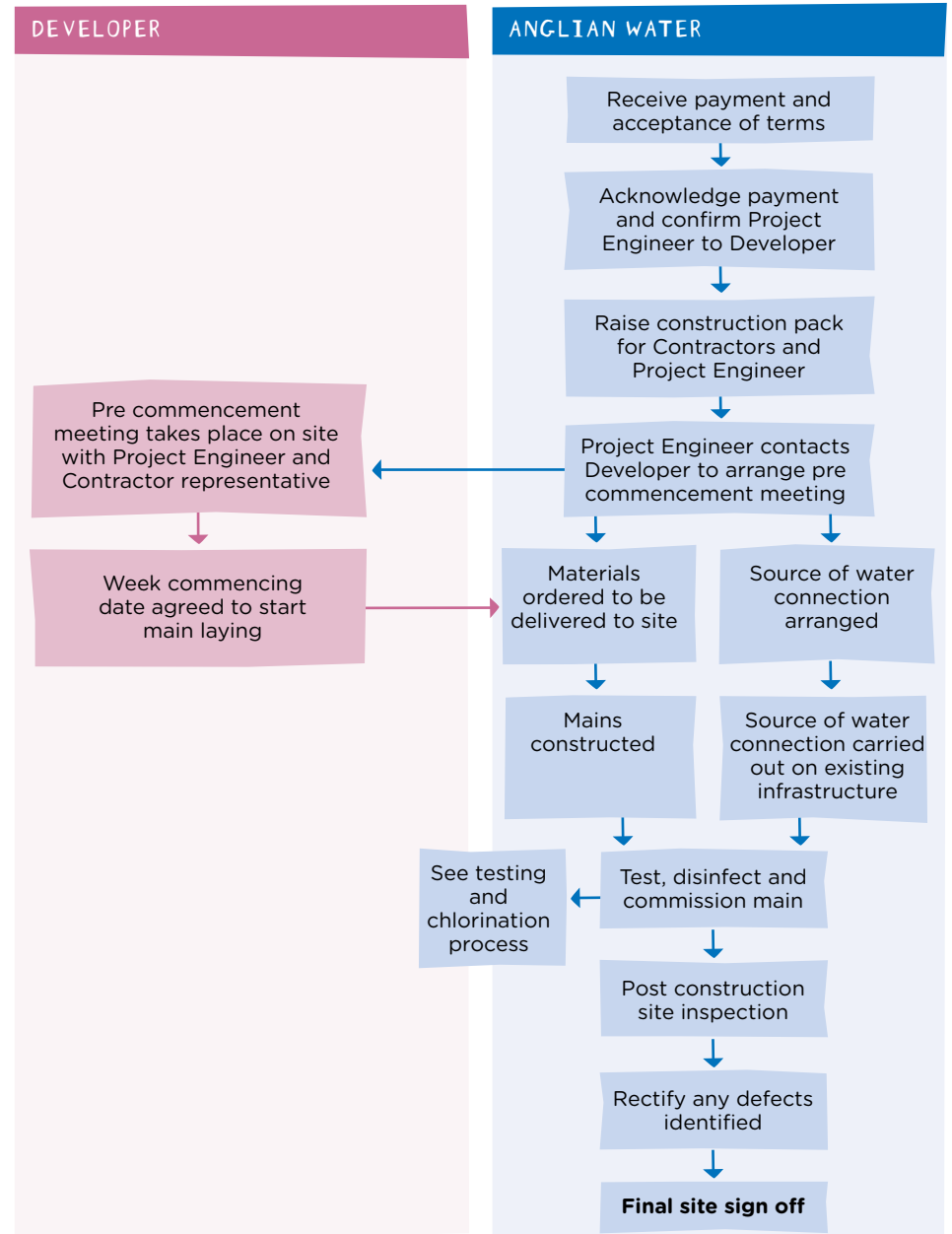
Under the CDM Regulations 2015, the Developer has client responsibilities for the new mains construction on your site. These include:

- Select and appoint a competent principal Designer.
- Select and appoint a competent principal Contractor.
- Verify the sufficiency of the construction phase plan prior to commencement.
- Verify that suitable welfare facilities are in place prior to commencement.



SECTION TWO – WATER MAINS

Water main construction process



Pre commencement meeting

Before the construction of the new water main commences, our Project Engineer will arrange a pre commencement site meeting. Our Project Engineer will contact you once we have received acceptance of our offer. This meeting should be attended by the Project Engineer, a representative from the Developer and a representative from Anglian Water's Contractors. At the pre commencement meeting the following will be agreed:

- A week commencement date to start the mains construction.
- The kerb line and levels will be available by the construction start date.
- The designated area for the storage of pipes and fittings will be agreed so that delivery can be arranged.
- Exchange of relevant health and safety and CDM information.
- The lengths of mains to be constructed compared to the mains design drawing.
- The plot numbering and plot layouts haven't changed or been amended compared to the mains design drawing.
- Line and level of other utilities services in the vicinity of the water mains or services will be identified prior to commencement.
- Any other site specific information.

Important note: If when Anglian Water's Contractors arrive on site, the lengths of mains to be constructed as agreed at the pre commencement meeting cannot be completed, a charge for the remobilisation of the Contractors and the cost of the additional connections will be levied. If we are unable to start work for reasons within the Developer's control we reserve the right to leave site and re-programme the works.



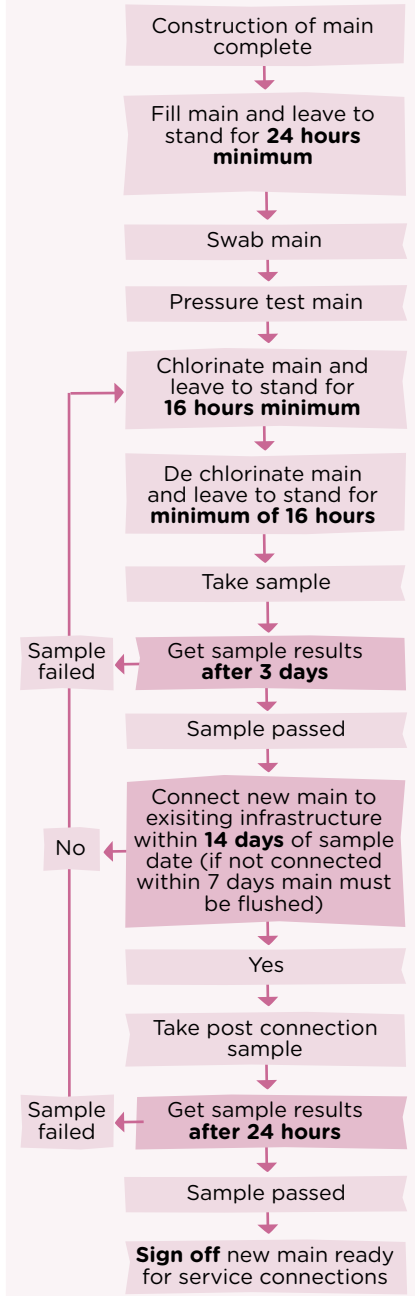
Site preparation and commencement of main laying

Before construction of the new main commences, it is important that the kerb lines are marked out and that the Contractors are advised on the final finish level. The line of the new water main should be clear of all building materials, scaffold, skips and plant.

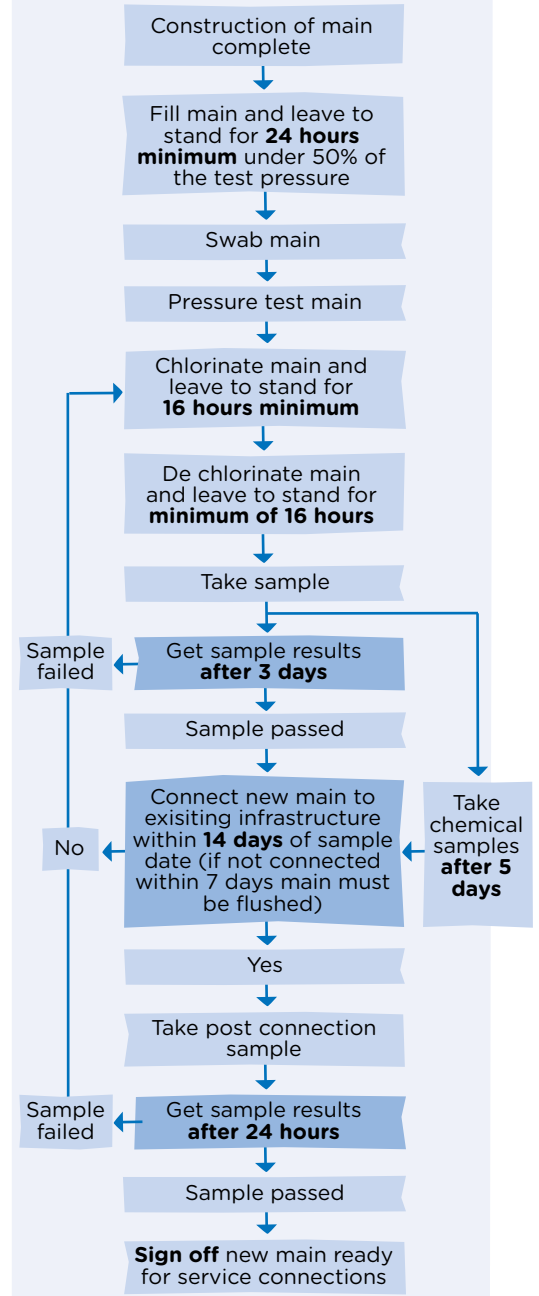
All Anglian Water and its Contractor's staff will be given a site induction by the Developer immediately upon arrival on site. Any standing time incurred as a result of waiting for an induction may be recharged to the Developer. All Anglian Water and its Contractor's staff will sign in and out at the site office each day they are on site.

Testing and chlorination process

MDPE/HPPE/ALPE MAINS



DUCTILE IRON MAINS



Where possible, water mains will be constructed with a minimum cover of 900mm from the top of the main, to the finished surface level and 690mm from the centre of the main to the kerb face.

Anglian Water work on a timescale of

10 WEEKS

from starting the construction of the water main, to commissioning the water main and it being available for service connections.



Post construction sign off

Once the new water main is commissioned, the Anglian Water Project Engineer and a representative from Anglian Water's Contractor will walk the line of the new main to ensure that:

- All fittings have been installed as per the design drawing.
- All fittings are in chambers set to finish levels given.
- The correct covers are fitted to the fittings.
- The correct marker posts are installed.

Any defects identified at this point will be rectified by the Contractor. Once the site is signed off as complete and there are no outstanding defects, any subsequent damage to the main or mains fittings will be recharged to the Developer.

Fire hydrants Use of fire hydrants

Unauthorised use of a fire hydrant is an offence under section 174 of the Water Industry Act 1991. In order to avoid the risk of legal

proceedings, please contact Anglian Water to get authorisation to use a fire hydrant and to hire a metered standpipe. Interference with fire hydrants can result in:

- Contamination of the water network.
- Damage to fire hydrants.
- Discolouration of the water network.
- Burst mains due to pressure surges.
- Reduction in pressure of the water network.
- Interruption to supply to surrounding properties.

Fire hydrants should not be used for temporary building water supplies.

Fire hydrants on new water mains

When designing new water mains Anglian Water will liaise with the Fire Authorities regarding the provision of fire hydrants, and will install new fire hydrants where requested by the Fire Authority.

Please remember that fire hydrants are life saving devices; it is

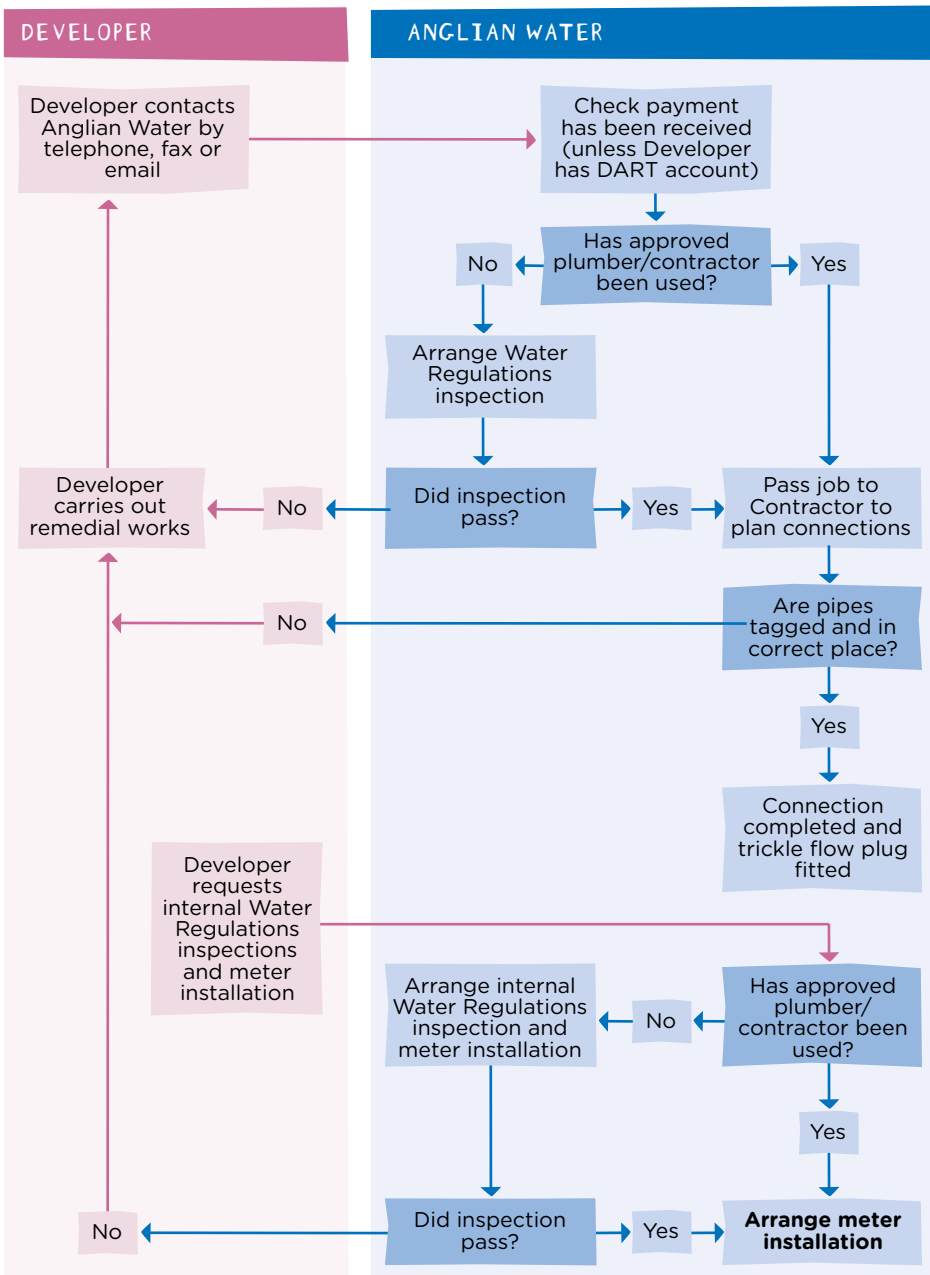
therefore important that once the new water main is commissioned you ensure that:

- Site access is made available to fire service personnel so that the new fire hydrants can be inspected and adopted by the Fire Authority.
- The position of new fire hydrants are kept free and not covered or obstructed by building materials etc, so that they are accessible in the event of a fire during the construction of your development.
- When constructing footpaths and other final surfaces, you ensure that the correct fire hydrant cover is installed, the fire hydrant marker post is in position, and the fire hydrant cover is to finished surface level and not buried.
- Fire hydrant chambers are free of debris and surfacing materials, and the cover can be removed.



SECTION THREE

SERVICE CONNECTIONS

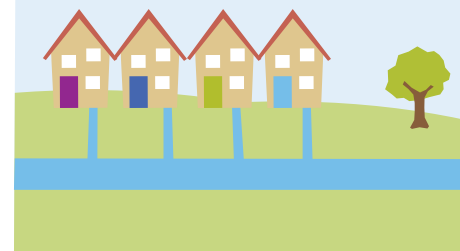


Specification for underground services

It is the Developer's responsibility to lay the service pipes from the property, to the highway boundary of the property. The installed service pipe and fittings must comply with Water Supply (Water Fittings) Regulations 1999.

Service pipes must be a minimum of 750mm deep and ducted where they enter the building. An internal stop tap is to be installed prior to service connections being made, and the end of the pipe to be connected to the main shall be sealed. Service pipes are to be bedded and covered in sand prior to trenches being backfilled. If the water main is on the other side of the road, the service pipes are to be laid to the near side kerb and a duct installed across the road. The ends of the duct shall be exposed in readiness for the connection to be made.

It is important that all service pipes are clearly marked or labelled as to which plot they serve before the connections are requested. Failure to label the service pipes may lead to delays or service connections being aborted.



Position and installation of boundary boxes

Highway Authorities will not allow boundary meter boxes in driveways or crossovers where vehicles are likely to drive over them. Chambers serving individual plots will be positioned just inside the boundary point, however multi plot manifolds will still be placed in what will be the public highway.

An appropriate location should be considered when installing service pipes. If the chambers are positioned in a location which the Highway Authority do not deem acceptable, this can result in them refusing to adopt the road/footpath until they are repositioned. This work will be carried out at the Developer's cost.

An alternative is available where the Developer will purchase and install the boundary box within the curtilage of the property, at the same time as they lay the service pipe. This is known as a 'below ground ferrule connection' and a fact sheet explaining further details of this option can be found on our website. www.anglianwater.co.uk/developers/ferrule-connections.aspx

Installing wall boxes

Anglian Water accepts the specification of both 'Groundbreaker' and 'Intex' wall boxes. If a wall box is the preferred method of connection, it is the Developer's responsibility to purchase and install the wall box prior to requesting the service connection.

When you have requested and paid for the ferrule wall box connections, it is your responsibility to excavate to the warning tape above the water main before Anglian Water Contractors carry out the connection. When making a connection to a wall box, Anglian Water will not install a controlling valve at the property boundary, as there is an isolating valve that is built into the wall box.

This reduces the need for unnecessary street furniture. Anglian Water will be responsible for maintaining the wall box, but the pipework from the property boundary to the wall box remains the responsibility of the Developer/Occupier.

For details of Groundbreaker wall boxes:

Groundbreaker
13 Farriers Road, Stowmarket
Suffolk IP14 2NS
Telephone: **01449 673 451**
Fax: **01449 673 470**
Email: sales@groundbreaker.co.uk
www.groundbreaker.co.uk

For details of Intex wall boxes:

Talis UK
The Lodge
Coleshill Manor Office Campus
South Drive
Coleshill
B46 1DF
Telephone: **0845 077 9797**
Fax: **0845 077 9798**
Email: enquiries@talis-group.com
www.talis-uk.com

Important: If wall boxes are fitted it is important they are positioned on the property where they will be easily accessible for the meter reader. The preferred location is a front or side elevation. It is important that they are not positioned at the rear of properties or where access for reading may be restricted, for example by locked gates.



Water Regulations and approved plumbers/contractors

All external service pipes and internal plumbing must comply with the Water Supply (Water Fittings) Regulations 1999. If Anglian Water approved plumbers or approved sectored contractors are not used, Anglian Water will carry out Water Regulations inspections.

Anglian Water approved plumbers – If Anglian Water approved plumbers are used on your new property they will issue you with a Water Regulations Compliance Certificate for every new property. Where such a Certificate is not obtained, Anglian Water reserves the right to carry out an inspection.

Anglian Water approved sectored contractors – Sectored contractors can also issue a Compliance Certificate. They do not need to hold a formal plumbing qualification but they will be required to pass the Anglian Water assessment test based on the Water Supply (Water Fittings) Regulations 1999. The sectored contractor may specialise in the following areas: underground installations and/or site manager/agent. If you would like more details on Water Regulations or the approved plumber/contractor scheme, please contact our Water Regulations Team on **0345 60 66 087, option 4, then option 2** or by email to aplus@anglianwater.co.uk.

Location of water service stop valves and meters within blocks of flats or apartments

Anglian Water requires separate metered water services to flats and apartments. When installing individual water services into a block of flats or apartments, each supply must have a stop valve located in the **communal area** of the building. This is so that in the event of the flat occupier not being present, the supply to that flat can still be isolated by others without entering the flat, in the event of a water leak coming from that area.

The mains water service pipework in blocks of flats or apartments must be located either in communal areas of the building or in purpose made service ducts. The services must not pass through flats, and all mains water services must be accessible at all times.

Pipework must be installed in compliance with schedule 2, paragraph 10 of the Water Supply (Water Fittings) Regulations 1999. Please contact our Water Regulations Team on **0345 60 66 087, option 4, then option 2** or email reg5@anglianwater.co.uk if you would like further advice in this area.

If external water meters are not possible for each flat, Anglian Water will allow internal meters. If internal meters are installed, the Developer will install a metallic manifold to house the meters.

The installation shall include an isolation valve for each unit, downstream of the meter, and a non-return valve and drain-off point upstream of the meter. The meter manifolds must be located in an area of common access, ie a meter cupboard, enclosure or plant room.

Water services in contaminated ground

If the site has been deemed as contaminated, the service pipes installed by the Developer must be in either 'Protectaline' barrier pipe (preferred option) or plastic coated underground copper to BS EN 1057:1996.

Wall boxes are suitable for use on contaminated sites. If boundary boxes are required, Anglian Water will install a contaminated land boundary box.

For further information please see the contaminated land section on our website www.anglianwater.co.uk/developers



Manifold connections

If any of the service connections on site are to be made using 2, 4 or 6 way manifolds, the service connections for all of the properties served by each manifold must be requested at the same time and they must all be ready to be connected in one visit.

Temporary building supplies

Temporary building supplies can be made to either a temporary standpipe or to temporary site welfare facilities. All standpipes and welfare facilities must comply with the Water Supply (Water Fittings) Regulations 1999.

All standpipes and/or taps that a hose may be connected to, must be fitted with a double check valve.

Requesting your service connections

When contacting Anglian Water to request your service connections, please ensure:

- Payment for the services have been made if your company does not have a DART account.
- Your service pipe from the property to the boundary is in place and complies with the specification above and the Water Supply (Water Fittings) Regulations 1999.



- The service pipe is clearly marked as to which property it supplies, and is sealed to avoid contamination.
- The area of the service connection is free from obstacles, such as skips, scaffold and building materials.
- The pipe inside the building has a stop tap fitted.
- Where the service connection crosses site roads, the ends of the ducts are exposed and marked.
- The finished kerb line and levels are known.
- If the connection is a ferrule wall box connection, the point of connection to the water main is excavated down to the main warning tape.
- Boundary boxes will not be in driveways or vehicle cross over.
- **Where very high risk installation, ie rainwater harvesting or greywater systems are being installed, the connection will not be made until the installation has been given water regulations consent by Anglian Water.**

You will need the Anglian Water job number(s) for connection(s) you are requesting. You can request service connections by:

Emailing: connectionrequest@anglianwater.co.uk or completing the request for service connection form from our website www.anglianwater.co.uk/developers or by calling our Connections Team on **0345 60 66 087, option 2, then option 1.**

Important note: Standard domestic connections will be installed with a trickle flow plug at the time of connection. The trickle flow plug will give adequate flow and pressure for the testing of the internal plumbing system, but will not be adequate to supply an occupied property. The water meter will be installed at the same time as the internal water regulations inspection takes place to ensure compliance with the Water Supply (Water Fittings) Regulations 1999. Therefore it is important that the property is fully plumbed when requesting the meter installation.



For information on non-standard domestic connections, please contact the Water Regulations Team on **0345 60 66 087, option 4, then option 2** or email reg5@anglianwater.co.uk.

When you are ready for the internal water regulations inspection and meter installation, please contact us on **0800 137 631** 9am to 5pm Monday to Friday, quoting the Anglian Water job numbers. Please allow 5 working days for the meter to be installed from the date requested. At the time of the meter fit Anglian Water will also record an accurate meter location as well as confirming the postal address, occupancy date and occupier if known. This

will ensure accurate billing of our new customers.

It is a criminal offence for Developers or their contractors to tamper with the trickle flow plug in any way.

Our levels of service

Our levels of service for making water connections are detailed in the table below.

Chlorination of service pipes

If service pipes are over 100 meters in length or greater than 63mm in diameter, they must be chlorinated and tested before connection. A list of companies that can carry out the service chlorination can be found on the Developer Services pages of our

website www.anglianwater.co.uk. It is the Developer’s responsibility to organise the chlorination. Please liaise with our Connections Team when doing this by calling **0345 60 66 087, option 2, then option 1.**

Post connection damage

Any damage caused to boundary meter boxes after they have been connected will be repaired or replaced by Anglian Water and the full cost of the work will be recovered from the Developer.

Please ensure when final surfacing is carried out, the boundary meter boxes are adjusted to the correct level and not buried, and that lids can be removed with ease.

Our levels of service	
No traffic restrictions/ on development site	Up to 15 working days
Traffic restrictions	If 3 or 4 way traffic lights required up to 50 days
	If the road is classed as traffic sensitive up to 90 days
	If a road closure is required up to 3 months
Access notices to enter private third party land	If our main is in private land owned by a third party, we are required to serve legal notices, this can take up to 90 days
Service pipe requires chlorination (see above)	If either the Developer or Anglian Water service pipe needs to be chlorinated additional time needs to be allowed.

SECTION FOUR WATER REUSE SYSTEMS, RAINWATER HARVESTING AND GREYWATER SYSTEMS

All water reuse systems are considered by Anglian Water to be very high risk. They contain water which is considered to be a fluid category 5 risk water, which represents a serious health hazard. Should you be intending to install either rainwater harvesting or greywater systems in your new developments, there are five key items of information that Anglian Water must be made aware of:

1. Regulation 5 - Notification to Anglian Water

Anglian Water must be notified of any proposed installation of a rainwater or greywater system.

2. The mains water back-up supply

The mains water back-up supply to any water reuse system must always be fully protected against the possible risk of backflow. Fluid category 5 backflow protection can only be achieved by the installation of either a type AA or type AB air gap, between the mains water supply and the water reuse system.

3. Wholesite backflow protection

Anglian Water insist that a **double check valve** is fitted on the rising

main, at the point of entry to any property that has a reclaimed or recycled system installed.

4. Internal pipework identification

All water reuse system pipework must comply with the colour coding standards set out in BS8515-2009 for rainwater and BS8525-2010 for greywater. These water reuse standards include clear labelling of all points of use and operational valves. Also, any outside taps must be labelled **‘NOT DRINKING WATER’**.

Colour coding of the pipework is essential to prevent any future **cross connection** between the drinking water supply and the water reuse system. This is not only a matter of water regulation concern but also a measure contributing to health and safety.

5. External pipework identification

The rainwater supply pipe from the below ground storage to the dwelling **must not be BLUE**. The British Standards clearly state that it **must be BLACK and GREEN**.

