



Hartlepool Water

Policy for the provision of self-lay arrangements for water supplies

**(Incorporating addendums to code of practice
for the self-laying of water mains and services
– England and Wales)**

March 2010

1.0 introduction

1.01 Hartlepool Water is a business name of Anglian Water Services Ltd, and any reference within this document to Anglian Water shall also apply to Hartlepool Water.

1.02 Hartlepool Water Developer Services Team can be contacted at:

Hartlepool Water
Developer Services
3 Lancaster Road
Hartlepool
TS24 8LW

Telephone 01429 858056
Fax 01429 858000
Email engineering@hartlepoolwater.co.uk

1.03 The Self-lay Policy and Addendums shall be read in conjunction with the WRC “Self-laying of Water Mains and Services, A Code of Practice for England and Wales, 2nd Edition” and with Ofwat document “Competition in providing new water mains and service pipes; Guidance to water companies (version 3.0, 2009)”

1.04 Other key documents are as follows:

- Ofwat Process for handling disputes and appeals: Requisitioning of water mains and public sewers and/or lateral drains and adoption of self-laid water mains (May 2004).
- Civil Engineering Specification for the Water Industry (CESWI), 6th Edition.
- National self-lay legal agreement.

1.05 If you have any queries or questions relating to self-laying of water mains or services, please email us at engineering@hartlepoolwater.co.uk

1.06 Our self-lay policy, standard forms, and other information can be found on our website using the following link:

<http://hartlepoolwater.co.uk/developers/self-lay/>

1.07 Any Self-Lay Organisation (SLO) wishing to carry out the self-lay of water mains and services, within the Hartlepool Water area, will need to be at a minimum partially accredited with the Water Industry Registration Scheme (WIRS) administered by Lloyds Register. Details of the scheme and the relevant application forms can be found on the Lloyds Register website: www.lloydsregister.co.uk/wirs or alternatively you can contact the schemes coordinator on 02476 518603.

2.0 Self-lay policy

2.1 Scope

- 2.1.1 The same arrangements are available to all developers and developments, large or small.
- 2.1.2 The self-lay policy generally applies to requests for water mains to provide domestic and non-domestic supplies.
- 2.1.3 Self-lay may also include the laying of services (including fittings and chambers. Meter to commissioned mains on new developments. This includes mains constructed by self-lay and mains requisitioned and constructed by Hartlepool Water.
- 2.1.4 Self-lay may also include the laying of services (including fittings and chambers to existing water mains subject to Hartlepool Water's approval. Hartlepool Water has the right to refuse such service connections, for the following but not limited to reasons:
- Main is a trunk or strategic main.
 - Main has high failure rate.
 - Mains material, for example PVC that needs depressurisation before connection.

Where SLOs carry out service connections in the public highway they will be required to meet all the provisions of the Road and Street Works Act and Traffic Management Act, including all noticing and defects liability periods.

- 2.1.5 Self-lay works can include both on-site mains and those off-site that extend to the point of connection on the existing network, as determined by Hartlepool Water. Self-lay works may also include the new mains part of diversion works; however no asset payment will be made for water mains for non domestic usage and on diversion works.
- 2.1.6 SLOs shall not be permitted on existing 'live' Hartlepool Water mains whether by replacement, reinforcement or mains connection thereto.

- 2.1.7 The developer or SLO shall provide all the necessary approved materials and resources to adequately construct the works. All material must comply with the relevant British Standards (BS) and Water Industry Standards (WIS) and any Hartlepool Water requirements. A materials schedule shall be provided to Hartlepool Water upon request.
- 2.1.8 Final flushing, pressure testing and disinfection shall be carried out by the SLO in accordance with Anglian Water specifications.
- 2.1.9 Hartlepool Water retains the right to undertake water quality sampling and laboratory testing as a non contestable activity.
- 2.1.10 The SLO may design both on-site and off-site works, although Hartlepool Water retains the right to design off-site systems if it wishes to do so. Hartlepool Water shall design all reinforcement works. Hartlepool Water will check and approve any design carried out by the SLO. All designs, whether by Hartlepool Water or the SLO shall be in AutoCAD format?
- 2.1.11 Hartlepool Water shall provide information on its water network, in as much as it has responsibility for the information, to facilitate developers and SLOs in carrying out self-lay work.
- 2.1.12 Hartlepool Water shall install the water meters to all boundary box and manifold connections. The SLO shall fit a trickle flow plug (yellow plug) at the time of the connection. SLOs shall only install meters to connections greater than 32mm at the time of connection; all meters installed must be issued by Hartlepool Water, which will be issued to the SLO free of charge. SLOs will be responsible for providing accurate meter details and meter locations for each meter fitted. Trickle flow plugs shall be issued free of charge to SLOs.
- 2.1.13 All self-lay schemes should be applied for using the Hartlepool Water self-lay application form.

2.2 STANDARDS AND SPECIFICATIONS

- 2.2.1 The SLO shall be required to work to Anglian Water standards and specifications, current at the time, in relation to **all** activities.

Similarly, Hartlepool Water (and its contractors) shall comply with its policy and procedures current at the time.

- 2.2.2 SLOs must be able to demonstrate that chlorine testing kits have been calibrated annually, and provide a calibration certificate if not tested by Hartlepool Water.
- 2.2.3 Chlorine solution bottles must be clearly marked showing content and strength, and the solution made up by dissolving 5 x 1 gram Available Chlorine Content tablets (Instachlor PR-1000 or similar) into 550ml of clean water, and wait until tablets are fully dissolved. Unused solution should be disposed of at the end of each day.
- 2.2.4 SLO operatives engaged in service connection activities must have hand washing facilities by means of both soap and clean water or hand wipes.
- 2.2.5 SLO operatives engaged in service connection activities shall have disposable cups in order to carry out taste and odour checks.
- 2.2.6 The SLO may design on-site systems subject to Hartlepool Water standards and specifications current at the time. Under a self-lay arrangement the SLO shall provide full details of designs and all risk assessments, method statements and action plans prior to construction on site.
- 2.2.7 Hartlepool Water shall issue the SLO with a commissioning plan prior to the testing and commissioning of the self-lay main. This shall include:
- The commissioning strategy for the scheme.
 - The sequence of commissioning (which will be a major factor in setting the sequence of construction).
 - Maximum swabbing, pressure test, sampling & chlorination lengths.
 - The availability of water for commissioning:-
 - Restrictions on volume available
 - Restrictions on timing of availability (i.e. seasonal and/or time of day/week).
 - Restrictions on flow rate taking account of Water Quality combined with the size, material and condition of existing mains.

- Maximum proposed velocity of water in the main during swabbing.
- Locations of fill points.
- Disposal of water used for commissioning.
- Location and details of connections and disconnections.

2.2.8 The SLO and / or developer shall enter into and comply with the national legal agreement for self-lay work before any work commences on site. Hartlepool Water retains the right to not adopt self-lay mains constructed prior to an agreement being in place.

2.2.9 Separate legal agreements and quotations shall be required to cover phased or staged projects.

2.2.10 The SLO shall work to all other applicable statutes, codes and regulations and indemnify Hartlepool Water accordingly.

2.2.11 All SLO operatives must hold a National Hygiene card, issued by Energy and Utility Skills, and have it available for audit on site at any time.

2.2.12 A developer or SLO shall fulfil all requirements under the New Roads and Streetworks Act 1991 and Traffic Management Act including retaining responsibility for the excavation and reinstatement of any street until the expiration of the NRSWA Guarantee period.

2.3 SUPERVISION AND INSPECTION

2.3.1 Hartlepool Water retains the right for supervision and inspection of pressure testing, final flushing, swabbing and disinfection.

2.3.2 Hartlepool Water retains the right to access any part of the self-lay works for inspection as deemed necessary.

2.3.3 Hartlepool Water retains the right to inspect and take samples of any materials used or intended for use in connection with the self-lay works.

- 2.3.4 Hartlepool Water reserves the right to charge a higher supervision fee to developers or SLOs who are only partially accredited to the WIRS scheme.
- 2.3.5 SLOs carrying out self-lay service connections shall be subject to on site audit by Hartlepool Water, see appendix 1 for copy of audit form.
- 2.3.6 Corrective actions shall be issued to the SLO for any non conformity identified during the audit, together with the timescales for carrying out remedial work.
- 2.3.7 Hartlepool Water reserves the right to notify Lloyds Registers of any non conformity found during any audit, inspection or supervision.

2.4 CHARGING

- 2.4.1 Hartlepool Water shall require the developer to provide surety by way of the signed national legal agreement. This surety can be a maximum of 25% of the onsite works and 100% of any off site works; however in the majority of cases, Hartlepool Water will not request surety for the onsite works.
- 2.4.2 Self-lay work may not commence until the signed legal agreement has been received by Hartlepool Water.
- 2.4.3 Upon issue of the vesting certificate the asset payment will become payable and will be paid upon receipt of an invoice from the developer/SLO.
- 2.4.4 Hartlepool Water shall charge for any checking and approval of SLO self-lay designs.
- 2.4.5 Audit and inspection of an SLO by Hartlepool Water shall be charged for on a per phase basis.
- 2.4.6 The developer/SLO shall reimburse Hartlepool Water for any additional site visits, sampling, mains connections or abortive costs it incurs in the process. These will either be charged separately or deducted from the Asset Payment. There will also be charges for any redesigns needed due to site layout changes.

- 2.4.7 Where works are sized to serve more than one development, Hartlepool Water shall fund the additional costs over and above those required for the development under consideration and recover the additional costs from future self-lay schemes or requisitions.
- 2.4.8 The developer shall be charged, as appropriate, for any additional costs Hartlepool Water has incurred previously in sizing works to cover subsequent development.
- 2.4.9 Any diversionary works, which Hartlepool Water agrees can be included in the self-lay arrangement, shall be funded 100% by the developer, including connections relating to the diversion. No asset payment shall be made for diversionary works.
- 2.4.10 Where the SLO makes service pipe connections, the SLO/developer pays Hartlepool Water the relevant charge per plot which covers administration, water regulation inspections and meter installations.
- 2.4.11 Where Hartlepool Water makes service pipe connections, the developer or SLO shall pay Hartlepool Water the cost of each service pipe connection as specified within the Hartlepool Water Charges Scheme.
- 2.4.12 Infrastructure charges are applicable and payable on all new service connections whether carried out by Hartlepool Water or the SLO.
- 2.4.13 Hartlepool Water shall make asset payments for self-laid assets for domestic purposes. Payments shall be based on statutory requirements set out in the Water Act 2003. This takes account of income received from new customers and is consistent with the calculation of requisitioning charges. The asset payments shall be made upon receipt of an invoice, subject to satisfactory commissioning and adoption of the self-laid infrastructure and any remedial works that have been identified, have been rectified. The asset payment will have a deduction equal to the developer contribution.
- 2.4.14 Hartlepool Water shall not make payments for self-laid assets for non-domestic purposes or diversionary works at this time.

2.5 DESIGN

- 2.5.1 SLOs are permitted to design on-site and off-site mains for Hartlepool Water to check and approve.
- 2.5.2 All designs should be submitted in AutoCAD format.
- 2.5.3 Prior to carrying out the design the SLO should request a point of connection from Hartlepool Water.
- 2.5.4 Appendix 1 defines the colour coding and symbols to be used on new water mains designs in the Hartlepool Water area.
- 2.5.5 The demarcation between mains to be constructed by the SLO and mains to be constructed by Hartlepool Water will be indicated by showing back-to-back wash outs, with a clear break in the main.
- 2.5.6 All mains will be referenced with the mains material and size.
- 2.5.7 Any service pipe greater than 32mm shall be referenced with its size.
- 2.5.8 All new fire hydrant positions will be as defined by the relevant Fire Authority.

2.6 PROCESS

- 2.6.1 Hartlepool Water shall comply with the levels of service defined in Appendix 7 of the Code of Practice.
- 2.6.2 Hartlepool Water shall not record against the levels of service until all the required information is received.
- 2.6.3 Hartlepool Water shall in all cases liaise with the Fire Authority regarding the numbers and positioning of fire hydrants. Designs shall progress subject to modifications required by the Fire Authority.
- 2.6.4 All notifications to Hartlepool Water shall be by the Hartlepool Water self-lay forms, available on our web site:
www.hartlepoolwater.co.uk

- 2.6.5 If the SLO does not commence works within the timescales quoted on the notification form, a new notification must be submitted.
- 2.6.6 The SLO shall give at least 15 working days notice of his intention to start on site. Using standard form SL1 "Notification of commencement of mains work for water self-lay scheme"
- 2.6.7 Before the serving of this notice, a pre construction site meeting must take place between Developer, SLO, and Hartlepool Water to agree scope and timescales of work.
- 2.6.8 Either before or during the Pre-construction meeting the developer shall submit to Hartlepool Water for approval:
- Programme and method statement for self-lay works.
 - Subcontractor details; (All sub contractors must comply with WIRS requirements).
 - Materials details.
 - Any other information reasonably required.
- 2.6.9 The SLO shall give Hartlepool Water a minimum of 10 working days notice of any pressure testing, flushing and chlorination works which require inspection and/or approval. Using standard form SL1 "Notification of commencement of mains work for water Self-lay scheme".
- 2.6.10 Hartlepool Water shall liaise with the developer or SLO to complete any off-site works for which it is responsible either before, or as soon as reasonably practical after, the completion of the on-site works.
- 2.6.11 The SLO shall give at least 15 working days notice of the date when it requires Hartlepool Water to make mains connections. Using standard form SL2 "Request for water mains sampling and commissioning for water self-lay scheme".
- 2.6.12 Before making mains connections, the water main and any other plant or apparatus shall have been pressure tested, swabbed, cleansed and disinfected and satisfactory water samples taken.

- 2.6.13 When the mains connection is ready to be made, and prior to the connection being made the SLO shall provide Hartlepool Water with as laid plans of the self-lay works, all evidence of work on-site, including all test certificates.
- 2.6.14 Upon receipt of the above, Hartlepool Water shall make the mains connection(s).
- 2.6.15 Following a joint site inspection between SLO and Hartlepool Water, once Hartlepool Water is satisfied that the self-lay works have been properly commissioned and connected in all respects, Hartlepool Water shall issue a Vesting Certificate to the developer or SLO. At this point the self-lay works become vested in Hartlepool Water subject to the liability period.
- 2.6.16 Upon issue of a Vesting Certificate at completion, all outstanding charges shall be payable. The Asset Value shall be paid by Hartlepool Water on receipt of an invoice, less any sums due under the terms of the Agreement.
- 2.6.17 The developer or SLO shall give at least 15 working days notice of the date when it intends to make service pipe connections requires Hartlepool Water to make service pipe connections. Using standard form SL3 "Notification of commencement of water connections for water self-lay scheme".
- 2.6.18 Before any service connection is connected to a new main; Hartlepool Water has the right to inspect the external pipework to be connected to ensure compliance with the Water Supply (Water Fittings) Regulations 1999.
- 2.6.19 The developer or SLO shall notify Hartlepool Water within two working days of the service connections completed using the standard form SL4 "Notification of completed service connections on self-lay scheme where Hartlepool Water are to install meters".
- 2.6.20 Hartlepool Water shall install meters within five working days of the date the meter is requested by the SLO/developer.
- 2.6.21 The SLO shall within two working days of completing a service connection, fax standard form SL4 "Water quality record sheet for service connection checks" for each plot to the Quality Scientist.

2.6.22 A Defects Liability Period shall, for service pipes, commence from the date of connection, which is also when the service pipes shall be adopted. The Defects Liability Period shall last for one year and shall ensure that the developer or SLO guarantees the works against any defect including damage.

2.6.23 A Defects Liability Period shall, for mains, commence from the date of adoption when a completion Certificate shall be issued. The Defects Liability Period shall last for one year and shall ensure that the developer or SLO guarantees the works against any defect including damage.

2.6.24 All boundary boxes on service connections shall be installed in the public highway at the property boundary but shall not be installed in driveways or vehicle crossovers.

2.7 VARIATIONS

2.7.1 Should the developer change the site layout or number of plots after the design has been completed or approved, Hartlepool Water must be informed of the changes immediately, for the design and the estimated asset payment to be reassessed.

2.7.2 If for any reason the new water main cannot be constructed as per the design, no variations to the design will be permitted without the approval of Hartlepool Water.

2.7.3 If any contaminants are found on site which had not been highlighted by the soil report, mains construction must cease immediately and Hartlepool Water consulted.

2.0 Material specifications

All material used on self-lay schemes must meet the Hartlepool Water specifications as detailed below:

All pipes must be delivered and stored with end caps. All PE fittings must be delivered and stored in plastic heat sealed bags.

Mains on non contaminated sites	Mains 90mm and above to be HPPE (PE100) 90 mm and above to be SDR17 All pipes must be marked with PN code and SDR on the pipe
Mains on contaminated sites	Mains up to 180mm shall be in "Protectaline" barrier pipe Please note that only fluid coupling or electrofusion coupling with aluminium tape and petrolatum tape proactive wrapping shall be used for Protectaline jointing, no butt fusion to be carried out. Mains above 180mm to be Ductile Iron compliant with BS EN 545 1995 and MIS 4-41-01, the minimum external corrosion protection shall be zinc coated with epoxy to BS EN 545, and all ductile pipes and fittings shall be internally lined.
Services on non contaminated sites	Services up to and including 63mm to be MDPE (PE80)
Services on contaminated sites	Either "Protectaline" barrier pipe (preferred) or plastic coated copper, all electro fusion fittings to incorporate fusion indicators
Electrofusion couplings for mains	To be HPPE (PE100) and can be blue or black in colour, all electro fusion fittings to incorporate fusion indicators.
Electrofusion tapping saddles for MDPE / HPPE mains	To be self tapping and all electrofusion fittings to incorporate fusion indicators. Gun metal tapping saddles will not be permitted on MDPE/HPPE mains.
Tapping saddles for ductile iron, cast iron, UPVC and asbestos mains	All tapping saddles to be made to BS2789 grade 500/7, and be capable of withstanding pressures of 16 bar.
Valves	Compliant with BS EN 1563, internal and external protection to be blue fusion bonded epoxy powder coating. All valves to be Left hand (Anti- clockwise) close only.
Fire hydrants	Compliant with BS750:1984. All hydrants to have copper alloy (gunmetal) outlet. The hydrant shall have an automatic frost valve, no water shall escape during operation and the body shall fully drain afterwards.

	All hydrants to be of a fixed jumper design
Chamber sections	Chamber sections to be rectangular and made of either plastic or pre cast concrete
Chamber covers	All covers to comply with BS EN 124/BS 5834. All covers shall be rectangular, and shall be marked SV, WO, FH, AV as appropriate. Covers shall be coated with bituminous coating to EN124 and BS5834 To mach pattern used by Hartlepool Water
Boundary boxes non contaminated sites	Single, double and multi port manifolds can be used. The boundary box must be able to incorporate a manifold meter with 1 1/2" thread, stop tap and non return valve. All boundary boxes must have height adjustment capabilities.
Boundary boxes contaminated sites	Where boundary boxes are used on contaminated sites they must comply with WIS-4-37-01, be watertight and shall have gunmetal connection fittings that are able to accept either Protectaline or plastic coated copper pipes.

Appendix 1 – Legend for water mains designs



