



Asset Protection: Development

Re: Large Main

We require detailed plans and the construction depths of the proposed works over and surrounding Severn Trent Water's asset. Prior to work commencing we will require confirmation of the line and level of the water main in the location of the works through hand dug trial holes.

Please be aware of the following precautions, conditions and requirements in consideration of your planned works:

- No building temporary or permanent permitted above the water main.
- 12 metre exclusion zone 6 metre on either side of the pipe.
- Main and easement not to be located within the confines of property boundaries.
- Main to be located in green public open space or adoptable public highway, subject to review and STW agreement, construction constraints will also apply.
- No machine excavation within 1500mm of the pipe, subject to confirmation of location. Within 1500mm all excavation undertaken by hand.
- No excessive ground is to be removed from the surround of the pipe.
- No excessive ground is to be removed below crown of pipe, angle of repose to remain at 30° any works beyond this are prohibited. Further consultation will be required.
- No ground is to be removed surrounding bends or thrust blocks.
- At no point or time is the pipe to be undermined.
- At no point will joints to the pipe be exposed.
- No heavy plant is to cross the main unless there is a designated crossing point.
- Where the pipe passes through the construction site, to be marked by a post and wire fence with hi-vis plastic netting 6 metre either side of the pipe to prevent accidental movement of equipment near the pipe.
- No plant loadings to be applied unless protection is installed.
- Point loadings of plant and equipment are to be supplied.
- Details of protection measures you will put in place to protect the asset are to be supplied.
- Details of how the protection measures will be constructed and maintained will be required by STW prior to works commencing.
- Detailed design and construction method statement taking into consideration everything detailed herein.
- No directional drilling.
- No piling or drilling within 6000mm of the pipe without approval. Vibration monitoring will be required as a result of any such undertaking.
- Contingency plans in the event that the main is damaged.
- Sequence of works.
- No other apparatus is to be laid within 450mm of our apparatus either above or below - subject to review of your detailed plans and STW agreement.
- All service crossings are to be laid at 90° and ducted.

- Storm and foul construction details to be supplied with applicable method of construction.
- No manholes / gullies permitted within 3 metre on either side of the pipe.
- Details of any proposed demolition to be provided.
- Street lighting details to be provided.
- Full information on any earth /noise bunds.

Cautionary notes for your consideration:

- Approximate daily liability as a consequence of damage is £3 million, excluding any repair requirements and consequential damage to nearby properties and land.
- Flood risk from any damage is extremely high.
- Any contractor/company working in the immediate vicinity must ensure that they have adequate insurance in the event of an incident, minimum therefore of £10 million for one incident.
- The Health and Safety pack for the site must have Severn Trent Water details within in the event of an emergency. 0800 783 4444
- Any designer or Architect designing works in the vicinity should ensure the above is accounted for and detailed accordingly.
- Every possible precaution should be taken to avoid damage to our apparatus. You or your contractor must ensure the safety of our equipment and will be responsible for the cost of repairing any damage caused.

Planting:

What type of planting is proposed? Trees and shrubs that have deep root ball growth are best thereby ensuring root growth around the main is avoided. We would be happy to review any planting proposed once they are available. We would also prefer that tree canopies do not develop over the main thereby ensuring that interference above ground is avoided. The following guidance should help to avoid such a scenario developing:

- Poplar and willow trees have extensive root systems and should not be planted within 12 metres of a STW asset;
- No large or forest trees should be planted within 10 metres of a STW asset. (Examples include oak, ash, beech, sitka spruce, douglas fir etc.);
- Medium and small size trees should be planted in such a way as to ensure that the eventual root spread reaches no closer than 1 metre to the asset. In practice, if trees are planted a distance of 6 metres away from the pipeline this should be sufficient;
- When simple screening is required within 2 metre of a STW asset, the following shallow rooting shrubs would be suitable: blackthorn, broom, cotoneaster, elder, hazel, laurel, privet, quickthorn, snowberry, and most ornamental flowering shrubs.
- STW requires access to the route of its mains at all times to inspect for leaks and carry out surveys. Shrubs or bushes which might obstruct or interfere with our access should not be planted within 1 metre of the centre line of any water main. However, in areas where soft fruit is grown, blackcurrant, raspberries and gooseberries may be planted close to the main, provided that a path is left clear for inspection access and surveys.

The measurements and distances set out above are for guidance only and there will always be exceptions. If you are unsure in any individual case, then specialist advice should always be sought prior to planting and discussed with STW.

Prior to planting commencing, appropriate on site apparatus detection techniques should be employed, and trial holes should be undertaken to validate the results of such detection surveys to confirm the actual position and depth of the apparatus.

Any damage to STW's assets caused by inappropriate planting by a third party must be rectified at the cost of that third party.

On completion:

- Maintained access and egress to enable suitable plant and equipment to repair, renew or maintain the asset.
- Consideration given to height and width access.
- Consideration given to the working environment in the event of repair and maintenance.
- Handover and inspection.