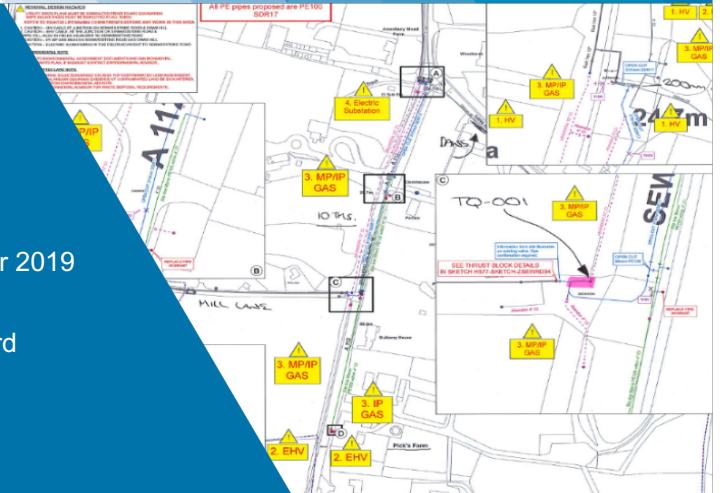


Sewardstone Road

KEY PROJECT DETAILS

Client	Thames Water / SMB		
Value	£340k		
Delivery	August 2019	Project Finish	September 2019
Location	A112 between Waltham Abbey and Chingford		
Works	Water Main Replacement		



The project involved the replacement of 525m of 12” and 4” water main and removal of 1,142m of leaking 4” pipe from the network. The replacement and removal formed part of the Thames Water network rationalisation programme. This particular stretch of water main had a high burst frequency over a significant period of time, causing traffic disruption as well as water supply issues to local residents.

Sewardstone Road is the road name given to the A112 which connects Waltham Abbey and Chingford. It is located in the borough of Waltham Forest, close to junction 26 of the M25 and is a busy commuter route as well as servicing a number of local bus routes. To manage the traffic the works commenced with a plan to use 2-way traffic lights for the duration of the project which was expected to be around 6 weeks. To inform road users of the upcoming works and reduce traffic congestion, variable message signs (VMS) were placed at key junctions both North and South of the works location before the project commenced.

Project Highlights

- The project itself was mobilised within 2 weeks from the client issuing the PO for the works.
- One of the main challenges identified was the close proximity of both EHV and HV cables as well as MP and IP gas installations. To ensure that these challenges were safely addressed J Browne met with Cadent Gas, National Grid and UKPN onsite as owners of these critical assets to address their requirements, and used ground-penetrating radar (GPR) to conduct electromagnetic surveys to accurately locate and pre-mark the existing utility routes.

- As part of the design, the no dig technique of slip lining was used on 267m of the 525m of replacement work, with 90mm PE pipe being inserted into the 4” main. This helped shorten the timescale of the project as well as providing notable environmental benefits from the non-invasive technique, principally, carbon footprint reduction from fewer site vehicle visits, less spoil removal and less backfill material being used.
- The remaining 258m of the replacement was installed via 315mm open cut trench. A clear route around the existing assets was navigated with zero service strikes being recorded on the project.
- In total, 1,142m of redundant, leaky pipework was removed as part of the network rationalisation programme.

Adaptability

During the early stages of the works on the replacement main, an unrelated major burst took place on the existing water main. The location and severity of the burst main required a full road closure of Sewardstone Road. J Browne liaised with Thames Water and the highways authority to get an emergency closure of the



Figure 1

road to enable repair works to take place. To ensure that disruption was kept to a minimum, J Browne accelerated the delivery of the replacement main to coincide with the completion of separate burst mains repair. This resulted in the project being completed ahead of schedule enabling the road to fully re-open with the latent burst issue being fully resolved also.