CASE STUDY: WHITECHAPEL, LONDON

A CISBOT CHRISTMAS: COLLABORATIVE UTILITY APPROACH

PROJECT DETAIL

During the festive period, the historic streets of Whitechapel were undergoing essential work by Cadent and Thames Water to future-proof the networks in the area. With the support from the Greater London Authority and Transport for London (TfL), Cadent delivered a minimal disruptive programme of work by using ULC's robotic technology to remediate a 150m section of pipeline.

At Mile End Road, ULC's operatives deployed CISBOT inside a 20" gas main to help Cadent keep the energy flowing to customers. Working live inside the main, CISBOT successfully sealed 40 joints and travelled 150m from only **one excavation**. The work was carried out working on a 24hr shift rotation pattern with **zero interruptions** to supply.

Cadent would typically encounter challenges with replacing and maintaining their infrastructure in a high-profile area using conventional methods, such as:

- TIME CONSUMING AND COSTLY
- INTERRUPTION TO GAS SUPPLY
- DISRUPTIVE TO PUBLIC
- CO2 EMISSIONS

CISBOT provided Cadent with a reliable solution to extend the life of by a minimum of 50 years, saving future disruption and providing significant cost savings. The use of CISBOT and ULC's 24hr work at Whitechapel minimised the need for multiple excavations, resulting in **saving 18 days of disruption** to the area.

Cadent
Your Gas Network

TOTAL LENGTH REMEDIATED:
150m

PIPE DIAMETER:
20"

TOTAL JOINTS SEALED:
40

PROJECT DURATION:
3 Weeks

DAYS OF DISRUPTION AVOIDED:
18

"I feel the outcome and slick delivery of the Whitechapel/collaborative project was a pure example of the engrained working relationship Cadent and ULC have built over the years. The methodical ways of our working shone through and built good foundations with varied stakeholders for future collaborative working projects."

Ollie Shanks, Network Engineer/Capital Delivery, Cadent

COLLABORATIVE APPROACH

The project adopted a collaborative approach, combining and capturing several projects within one wider programme of work. With utility work taking place across Mile End Road, ULC operatives deployed CISBOT by Whitman Road and remediated the 150m which ranged from Westfield Way to Grove Road.

To ensure the project ran smoothly, regular meetings were organised between the different parties to keep up to date with the progress being made. Taking a collaborative approach to deliver the overall project resulted in reducing the delivery time of the project, and avoiding further disruption if the projects were carried out individually.

USING ROBOTICS TO DELIVER BENEFITS

If the project was carried out traditionally, Mile End Road would encounter significant disruption to traffic and road users as multiple excavations would be required. Due to the work being conducted over the festive period, the footfall in the area would also increase.

By using innovative robotic technology, the following benefits were also delivered throughout this project:

REDUCED SITES:

CISBOT eliminated the need for large scale excavations and trenching used in traditional mains replacement.

SUPPLY RELIABILITY:

There were zero interruptions to customers' gas supply as CISBOT operates live inside a gas main.

MINIMISED PROJECT NOISE:

Operatives worked in eco-cabins which created minimal noise, allowing 24hr working.

REDUCED TIMES:

24hr operations enabled the CISBOT project to be completed ahead of schedule.

FUTURE-PROOFED GAS MAINS:

CISBOT extended the life of the gas main by a minimum of 50 years, minimising future maintenence.

SUPPORTING NET-ZERO:

The robotic operation created zero emissions as CISBOT was deployed from solar pannelled eco cabins.

"I have been working along with Cadent Gas CISBOT team, assisting them to plan CISBOT works within Tower Hamlets Borough. The collaborative works on Mile End Road went well with minimum disruption on the network. I feel this is a great way to repair leaks on gas mains. It is quick, efficient and this method reduces the impact on the network."

Ramesh Vekaria, Works Assessment Manager for East London, Transport for London

Are you interested in finding out more about CISBOT?

Contact ULC's UK team to find out more.

Call our UK office on **+44 (0)20 3617 4586** or email us at **ukenquiries@ulcrobotics.com.**