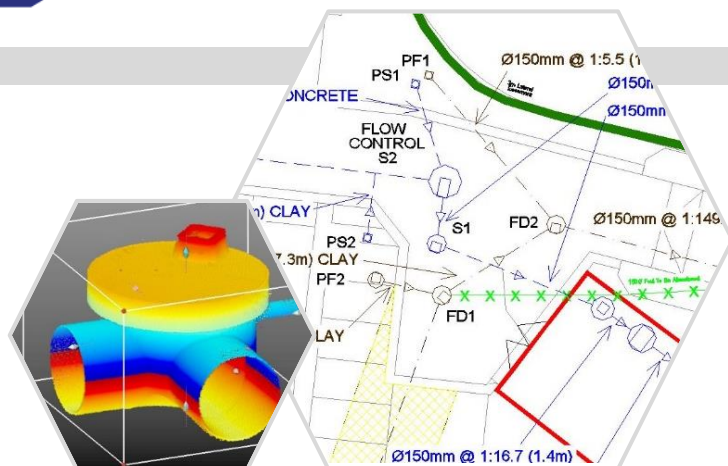


PROJECT AT A GLANCE

Project: Sewer Adoption Pack
Location: Woodmansey, East Yorkshire
Year: 2019
Duration: 4 Days



PROJECT BRIEF

LSTC was approached by a major UK housing developer to produce an as-built sewer system drawing pack for use in an S104 local authority adoption agreement. The developer required overview plans, longitudinal sections, special manhole detail drawings, and a detailed manhole schedule for all adoptable manhole chambers in a recently completed housing development. The information detailed in the drawings needed to conform with the drawing standards of the local water authority (in this case, Yorkshire Water,) and needed to be a full and accurate record.

CHALLENGES

- To deliver a complete as-built sewer survey despite any site or access issues.
- To deliver standard drawings in a timely manner.

OUR APPROACH

Our surveyors recorded with millimetre-accuracy the positions of all required manhole covers using Leica survey equipment. Simultaneously, the manholes were lifted and the necessary measurements inside the manhole chamber were taken from the opening at ground level using a Leica distometer.

For manhole chambers where information was not visible from ground level, or where special equipment such as flow control valves were present, we used a handheld Zeb REVO RT laser scanner mounted on a telescopic pole and lowered into the manhole chamber. The resulting point clouds provided ample data to extract pipe dimensions, inverts, and equipment details, removing the need for any confined space work.

This working method ensured the least possible time was spent on site to gather the most possible information, minimising the cost to the client. Our NRSWA surveyors observed appropriate traffic management and safe working practices throughout the course of the site works.

During the site work phase, we were also able to observe and document issues that would have otherwise been unknown until the inspection by the local authority, potentially saving the client time and money in later remedial works.

PROJECT OUTCOME / DELIVERABLES

By processing the measured data through an LSTC-produced system, we were able to generate the layout plans and longitudinal sections quickly and accurately, with detail drawings being produced manually to assure accuracy and completeness.

The client was provided with a full drawing pack consisting of:

- A full sewer system layout plan showing pipe size, material, flow direction, and gradients
- Complete longitudinal sections of both surface and foul water drainage systems
- As-built plans and cross-sections of the site's foul water pumping compound
- Several detail drawings of flow control and storage manholes
- A full manhole schedule including pipe, chamber, and cover information.

These drawings would be submitted by the client to the local authority for technical review, inspection, and ultimately adoption.