

South West Water CCTV Survey Specification

The CCTV Surveys and photographs are to be in colour.

Pan & Tilt Survey of Sewers

The Pan & Tilt camera shall be capable of 360° rotation and tilt up to 90° from the horizontal. The camera position is to be clearly displayed and recorded at the control vehicle.

The Contractor shall stop the camera at all connections, breaks and open joints and execute 90° tilt to the vertical and a full 360° rotation to inspect the connection or defect.

When completing surveys of sewers with a diameter less than 225mm with a pushrod camera, these surveys must be completed up stream to facilitate a visual inspection of the connecting pipework.

The Contractor will be required to stop the camera at defects as follows:-

All sewers

All defective junctions and connections (as defined in the WRc Manual of Sewer Condition Classification, Fifth Edition, published October 2013)

Continuous defects: at the beginning of the defect thereafter at 5m intervals unless another photograph is required before that because of other defects.

General condition at (a) intervals of 10 metres for drilled continuous pipe

or (b) each sewer length

1. CCTV Survey

1.1. CCTV Data Display

At the start of each survey length the following minimum information will be clearly displayed on the viewing monitor and video recording:-

- Camera meterage position in the line from adjusted zero
- Sewer dimensions
- Manhole/pipe length reference
- Date of Survey
- Road name/Location
- Direction of Survey
- Time of start of survey
- Sewer use

Once the survey is underway the following minimum information shall be continually displayed:-

- Camera meterage position
- Sewer dimension
- Manhole/pipe reference
- Direction of survey

The size and position of the data must not interfere with the cctv footage.

1.2. Camera Meterage

The CCTV shall display an automatically updated record in metres and tenths of metre of the camera position from the zero point start of the survey length. The measurement shall be accurate to +/- 1% or 0.3m whichever is the greater.

1.3. Camera Image Quality

The camera and illumination system shall be capable of providing a clear, accurate and in-focus record of the sewers internal condition.

When completing surveys with a pushrod camera, these images should be smooth and consistent throughout the survey.

1.4. Camera Speed

The speed of the camera in the sewer shall be limited to:

- m/s for sewers of diameter less than 200mm
- 0.15 m/s for sewers of diameter exceeding 200mm but not exceeding 310mm
- m/s for sewers of diameters exceeding 310mm

2. Reports

2.1. Survey Report

The Survey report shall include the following items:-

- Written report and site coding sheet in Microsoft Word or PDF format
- Video data in MPEG4 format
- Digital photographs in JPEG format: minimum 4 photos per manhole (cover, chamber, location view upstream & location view downstream)
- The report shall be computer validated, printed and presented in accordance with the format laid down in WAA/WRC "Manual of Sewer Condition Classification" Fifth Edition published October 2013

If the sewer length exceeds the length of the camera unit this survey must be completed from both ends and clearly denoted in the survey report a defining point recognisable in both surveys.

Note: CCTV Surveys must be submitted to South West Water within 3 months of being undertaken