



Project: A585 Windy Harbour

Location A585, Singleton,
Lancashire

Client Kier Infrastructure
Services

Date July 2020 to
February 2021

Category Highways Drainage
Surveys

Project Summary

Project Activity: CCTV Drainage Survey

Length of Drainage Surveyed: 10.5km

Hours of Works: Weekday daytime & night-time working

Summary of Works: Kier Infrastructure Services were engaged by Highways England to build a new offline bypass around the village of Singleton which has suffered from severe congestion, creating a bottleneck for traffic travelling to/from Fleetwood. The A585 through Singleton is a national speed limit single carriageway road with traffic light-controlled junction, side roads and right turn widenings.

Crown Plus was commissioned by Kier to undertake CCTV surveys of the existing highway drainage as set out on scheme drawings as well as private drainage belonging to several residential properties adjacent to the new bypass. The aim of the private drainage surveys was to ascertain the nature and condition of the existing drainage system to determine whether or not it could be connected to the new drainage being installed as part of the main project works.

Deliverables: The final deliverables for the scheme were as follows:

- Electronic footage of all drainage surveys
- PDF reports of all surveys together with defect schedules
- Asset Inventory drawings detailing all surface assets (Chambers, Gullies, Kerbs and other surface features)
- Asset condition drawings showing location of defects in each section of drainage
- Design drawings detailing cover levels and all invert levels of incoming/outgoing pipes
- Compliant shapefiles that met the requirements of DMRB CS551.

All the above deliverables enabled the design team to design the permanent drainage works for the new bypass.



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Full Programme Details

Working in collaboration with Kier and by reference to the pre-construction information provided by Kier, our Contracts Manager prepared detailed Risk Assessments and Method Statement (RAMS) for the work to be undertaken.

All operatives are regularly assessed for their competency before they are permitted to carry out any works for Crown Plus. These assessments include training and experience in carrying out typical tasks and their attitude towards the safety checks relevant to their work. A record of all competencies is kept on file, together with copies of relevant licenses, certificates and training courses.

Prior to commencing works on site, we advised the Clients team of the respective individuals who would be working on site, and we provided all their training and competency documents so that they may review the same and ensure that we had the appropriate number of trained staff for the works.

All personnel received a client site-specific induction prior to working on site. The induction detailed the main contract requirements together with the requirements around incident reporting, emergency procedures, contact telephone numbers, and local hospital details.

The RAMS document was formally approved by the Client prior to any works being undertaken. Prior to commencement of the works on site the RAMS were communicated and briefed in detail to all staff and operatives working as part of our works. All personnel confirmed their understanding and confirmation of the details within the documents and signed briefing sheets as confirmation. The briefing sheets were retained within the Health and Safety with copies submitted to the Clients H&S representatives.

Amongst the key risks identified were:

- High speed road with risks to and from the travelling public
- Interface with pedestrian traffic
- Interface with other works within closure
- Temporary traffic signal control for road traffic (2 & 3 way traffic lights)
- Manual handling
- Confined spaces
- Dirty water
- High pressure water jetting operations
- Leptospirosis (weils disease)

As this project was over several weeks all personnel also received regular toolbox talks on the various elements of the works so to reinforce the main approved methods of working and risks associated with the works. In addition, as the CCTV and GPS survey works were undertaken in 'mobile works' as the work location changed on a daily basis, daily pre-shift briefings were provided and given by the site supervisor to reinforce the health and safety messages. This ensured everyone knew the tasks for the day and any new or changed working requirements.

All our staff and operatives were provided with appropriate PPE for the tasks involved and the environment that they were working in. Spares of all PPE were held on site and distributed as/when necessary. Our supervisor was the 'Appointed Person' for first aid. The Supervisor was responsible for reporting and recording accidents, incidents and near misses. All welfare was provided by the principal contractor.

Traffic management (TM) was arranged by Kier. Detailed TM drawings for each phase of the works were provided. The daily pre-shift briefing discussed the TM layout for that day ensuring our teams were aware of access and egress points together with any special requirements. Special care was required when working in the vicinity of the junction between Fleetwood Road and Garstang New Road where the permanent traffic lights were replaced for the works with temporary 3-way traffic lights.

Full Programme Details (cont.)

Mobilisation to site only happened, after the briefings had been undertaken, and once the TM had been installed and checked by the TM supervisor. Access and egress to the TM area was only undertaken using the approved points.

Our supervisor liaised with Kier and the traffic management (TM) contractor daily providing updates on the progress of the surveys relative to the programme of works. This enabled the road space booking teams to liaise closely with the local authority who approved all road space bookings. Any significant delays on site effected the planned programme dramatically as road space bookings would have to be amended, conversely when good progress was made, and we gained time on the programme early entry requests could be made at the appropriate times.

Welfare facilities were provided by Kier. These were in the main site compound with a welfare van provided within the working area.

For this project the following specialist equipment was required:

- 28t Jetvac recycling unit
- Agilios XR60 Push Rod Camera system (Atex Zone 1&2 compliant)
- IPEK VC 500
- Rovion RX130 (Atex Zone 1&2 compliant)
- Rovion RMX2 (Atex Zone 1&2 compliant)
- WinCAN VX Expert
- Manhole keys and hydraulic cover lifter.

Only personnel trained and competent in the use of each piece of equipment was allowed to operate it. All equipment was examined before being taken to site and regular checks were carried out during operations. Special consideration was taken during days when freezing conditions were prevalent to the HPWJ operations and water spills. There were no spillages, or environmental incidents, during our time on site.

Before accessing any part of the drainage system, the relevant covers were removed and allowed to vent. Standard manual handling assessments were used for the lifting of covers.

As part of the scheme, we were also required to undertake the emptying and inspection of several septic tanks that were on private land. This required a confined space entry team to enter each of the tanks to undertake the works. For this element of works advanced H&S procedures were adopted due to the high risk nature of the works.

Each of the set ups for each confined space entry required the following to be in place:

- Fall Arrest Tripod
- Fall Arrest & Recovery Device
- Rescue Harness
- Gas Monitor (Flamm/H2S/CO/O2)
- Escape Breathing Apparatus including mask

Each day before work commenced, the survey area was inspected for signs of any protected plant or animal life that may be at risk because of the proposed works. No such signs were identified but had there been any they would have been reported to the client before continuing work.

Should a spillage or contamination have occurred during the works spill kits were available in the CCTV van.

Full Programme Details (cont.,)

Key Personnel

The key personnel involved in this project were our:

- Contracts Manager (SMSTS),
- Supervisor (SSSTS),
- CCTV & GPS operator
- Jetting operator
- Confined Space Entry Team (6150)

Concluding Summary

Crown Plus undertook drainage technical surveys on a high-speed single carriageway with no safety incidents, no environmental incidents and no near misses. This was achieved through close collaboration between Kier as principal contractor, their TM contractor and Crown Plus.

Crown Plus contributed to the high levels of health and safety achieved by:

- good planning and preparation
- respecting site rules
- good supervision
- using well maintained equipment
- deploying trained and competent operatives