

UNDERCOVER

ONSITE CENTRAL ACQUIRES PERCO



A new phase in Perco's development starts as we become part of Onsite Central Ltd, a division of South Staffordshire Plc.

Autumn 2007 saw the completion of the sale of Perco Engineering Services Ltd to OnSite Central Ltd, the Specialist Waste Water Services division of South Staffordshire Plc.

Perco directors and founders Gary Houghton and Nick Sheehan will continue in their current roles to develop the company with the new owners.

Gary Houghton, Perco Managing Director commented, 'Being part of a much larger group will enable to us to grow the business in a way that would have been difficult to achieve under our previous structure.'

'As part of OnSite and South Staffordshire Plc we can invest more heavily in new technology and equipment. The acquisition also brings major benefits for our customers; they now have the reassurance that only comes with being part of a larger group.'

So why did South Staffordshire Plc want to buy Perco? Undercover asked Robert Harley, OnSite's MD why Perco was an attractive proposition.

Robert told us that 'As part of South Staffordshire Plc's growth strategy we are expanding the non-regulated side of our business and Perco was an excellent fit.'

'Perco's range of trenchless techniques will enhance OnSite's portfolio of services and will enable us to offer a more complete solution to our client base.'

'One example of this is Perco's EcoCIPP UV cured CIPP lining system which has outstanding performance and provides OnSite with an additional lining solution.'



OnSite Managing Director, Robert Harley

'We now have access to Perco's other trenchless rehabilitation techniques like headings and pipe bursting which are often used alongside OnSite's own CIPP lining business.'

'OnSite is best known as a term contractor whilst Perco's business is project based. We see great potential to develop Perco into a tier one contractor. Having a business the size of South Staffordshire Plc behind it will help Perco compete for and win much bigger projects in the future.'

Nick Sheehan, Perco's Sales Director was delighted with the acquisition by OnSite and told Undercover; 'as part of OnSite's growth plans for Perco, a considerable five year capital investment programme is in place. This will improve Perco's range of equipment and services, which will enable us to take on more projects and to compete for tier one contracts.'

Perco will continue to operate from its Northampton headquarters and from a day to day point of view it's very much business as usual.

Fast pipe bursting work in Northampton relieves traffic chaos

Severe erosion to concrete in a sewer at Weedon Road, Northampton, gave us a chance to show the people of our home town just what trenchless technology can do to minimise traffic chaos.

CCTV surveys showed that the 375mm concrete trunk sewer was so badly eroded in places that only the wire reinforcement remained and in other places the sewer had collapsed.

Anglian Water's term contractors, Danaher & Walsh decided that replacing the sewer pipe by open cut techniques would cause too much disruption to residents, businesses and road users and called us in to recommend a solution.

The 160 metre section of pipe was to be upsized to 450mm so we recommended pipe bursting using a 225 tonne pipe bursting rig. After bursting a new 450mm ID continuously welded PE pipe was inserted into position.

The road had been closed for a number of weeks during Autumn 2007 and was due to reopen by November 11th. Because the new pipe was installed using pipe bursting, the road was reopened two weeks ahead of schedule bringing relief to everyone affected.

We completed the works in a three day window. If the pipe had been replaced using open cut techniques the work would have taken nearly three weeks, highlighting the time and cost benefits of trenchless technology.



225 tonne rod puller set up for bursting



Welding lost steel casing during augering operations

Guided auger boring installs new water main under live rail.

When Balfour Beatty needed to install a new potable water pumping main at Dragonby in North Lincolnshire, We were awarded a contract to install 30 metres of 610mm ID lost steel pipe along with the launch and recovery shafts in soft ground with running sands.

To minimise disruption to rail operations, We installed a 7 metre deep, 3.2 metre diameter launch shaft with a concrete thrust wall for its BM400 optically guided auger boring rig.

A 7 metre deep, 2m x 3.5m rectangular manhole box was installed as a reception pit on the opposite side of the railway. Enabling works were carried out over a two week period without disruption to rail services.

Due to the soft ground conditions, auger boring under the track was carried out during a weekend possession from 22.00hrs Friday until 06.00hrs on Monday.

The augering work was completed 18 hours ahead of schedule. After installation, the shaft and box manhole were both capped and converted to manholes.

Return to Mumbai

Our Expandit™ training team visited our Indian licensee, Shriram in November, to carry out more training on our patented pipe bursting system.

We returned to train Shriram on all aspects of the Expandit system. Site conditions were very different and it was the first time that we had seen a bursting head being blessed by a Hindu priest before work commenced!

Another unusual aspect was the amount of interest shown by passers-by who would wander on to the site to look at the works and chat to the crews. The training lasted for two weeks and now Shriram's engineers are carrying on with the project to replace a 6km section of sewers in Mumbai.

HEADINGS PROJECTS

Perco is one of the few companies that can provide this specialist sewer connection and rehabilitation technique. Our tunnellers were busy across the South of England in 2007.

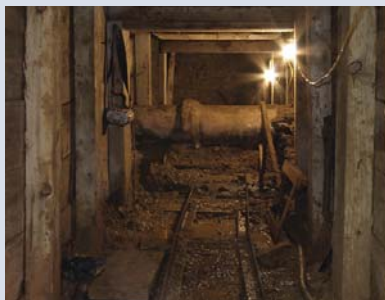


Dai Beer constructing a heading in Enfield, London

Enfield Housing Development

The need to avoid traffic chaos on the A1055 Ridgeway in Enfield, North London meant that conventional methods for connecting the development's new sewers were not acceptable. Fortunately our engineers were able solve the problem using the traditional Timber Headings method.

Two headings were constructed, each to BS6164, at a depth of 3 metres below the carriageway. Excellent ground of clay



The completed heading ready for pipe installation

ballast provided ideal conditions for excavation and the small amount of ground water entering the works was removed by pumping.

The first, a 9 metre long heading connected the development's foul sewer to the public network. The second heading of 5 metres long carried the site's storm drain. After the pipes were connected the headings were backfilled with Bacel Hard Foam. Safety is always the prime concern on construction sites and we were highly praised for our approach to site safety.

Margate Hospital

As part of a new development for nurses' accommodation at the Queen Elizabeth, The Queen Mother, Hospital a new sewer connection was required. Due to the need for unrestricted access to this busy hospital, timber headings provided the only feasible solution for the sewer connection.

A 6 metre long timber heading was constructed to BS6164 for the installation of the 150mm ID clay sewer pipe. Ground conditions of wet chalk meant that clean air had to be pumped into the heading to reduce naturally occurring high gas levels in wet chalk.

The new sewer pipe was saddled onto the public sewer whilst Southern Water's CCTV contractors confirmed that the connection had been made to the required standard. After installation the heading was backfilled with drylay concrete.

Southampton Job Centre Plus

Shortly after the opening of a new public area at Southampton's Job Centre Plus, the existing sewer collapsed under the 10 storey office tower.

Repairing the sewer pipe posed major problems as the area contained the main services for telecoms, rising main and water. We replaced the affected pipe by digging a five metre heading from a 600mm sq. manhole in an interview booth inside the Job Centre at night so it could remain open as normal during the day.

Spoil was transported to an enclosed skip offsite. We brought in our own welfare facilities so there was no need to use any of the facilities in the secured area.

Each night the public area was protected and the carpet removed to give access. Each morning the Job Centre was returned to normal, with customers having no idea that major excavations had been going on beneath them.

The work was carried out in five days without disruption to the client.

EcoCIPP proves its superiority against traditional hot water cure CIPP systems



Our EcoCIPP lining team reline a Victorian U shaped sewer during overnight operations in Salford, Greater Manchester

OUR ECOCIPP LINING TEAM HAS BEEN BUSY ACROSS THE UK INSTALLING ECOCIPP UV CURED GRP LINERS IN NUMEROUS GRAVITY SEWER REHABILITATION PROJECTS. HERE IS A SMALL SELECTION OF LINING PROJECTS UNDERTAKEN IN 2007.

Rail projects in the Midlands

EcoCIPP was chosen by Tomlinson Rail for a series of ten complex sewer renovation projects under rail. The upgrade has a design life of 50 years.

All works had to be carried out without interruption to rail operations, with some installations being directly under the railway, whilst others were under bridges. Our experience in working on the railway greatly assisted in ensuring that rail operations weren't affected in any of the projects. Approximately 3/4 kilometre of EcoCIPP liners in a range of diameters from 225mm to 600mm were installed.

Due to the ground conditions, EPROS patch liners were also installed to stem water ingress prior to lining. EPROS patch liners were also installed at another location to provide a localised repair solution.

The works were carried out in several phases throughout 2007.

M1 Junction 6a to 10 widening scheme

Our EcoCIPP lining team were called in by Balfour Beatty Scanska to rehabilitate four drainage crossings under the M1 motorway in Hertfordshire as part of the widening programme. This 10 mile section of the M1 carries 160,000 vehicles a day and is being widened to four lanes plus hard shoulder in each direction.

The main contractor extended the two existing 300mm and two 375mm ID sewer crossings with smooth bore corrugated plastic using open cut trenching.

As the original clay pipes were cracked and had misaligned joints, the entire length of each pipe under all eight lanes was then lined with EcoCIPP UV cured GRP liners. The work was carried out in a two week window.

Specially designed EcoCIPP rehabilitates a Victorian U shaped sewer in Salford

This unusual project in Lower Broughton, Salford, Greater Manchester was carried out at night in November 2007.

The existing U shaped gravity sewer was constructed in the 19th century by building a U shaped channel and then covering it with



The failing U shaped sewer prior to lining

large stone slabs. The brickwork had started to fail and the sewer needed to be upgraded to extend its working life.

Balfour Beatty Utilities, United Utilities' term contractor, appointed us to install specially designed self-supporting EcoCIPP liners with a wall thickness of 20mm, making the liner very heavy. A special, trailer-mounted conveyor belt was used to install the liner.

To reduce disruption to heavy traffic in the area, both the installations were carried out in night operations when a total of 52 metres of EcoCIPP linings were installed in two sections.

Patch Lining - a new addition to our CIPP product range

We are now approved installers of Trelleborg's EPROS Patch Liner system. The system complements our EcoCIPP and PressureCIPP Cured In Place Pipe lining products and our other sewer rehabilitation systems.

Since being appointed we have successfully completed several patch lining projects, including one where patch liners were used to stem water ingress prior to EcoCIPP lining on a major CIPP relining project for Tomlinson Rail in Cheltenham. (For details see opposite).

EPROS Patch lining repairs Welsh castle storm drain

When a 225mm ID storm drain at Laugharne Castle by the River Taf in South Wales needed repairing, digging out the sewer wasn't possible because of the close proximity of the historically sensitive site.

A CCTV survey showed the drain to be damaged in three separate places. Patch lining proved to be the most cost-effective repair solution with the least disruption to the site and surrounding area.

Three separate EPROS patch liners were installed from existing manholes into the storm drain in a two day operation, after which the storm drain was back in use.

PROJECT ROUNDUP

Pipe bursting helps Taunton flooding scheme

Our engineers used the gentle touch to upsize an 85m section of storm drain running under a line of gardens in Taunton, Somerset. The project to upsize the sewer to 400mm was part of a wider programme to reduce flooding in the area. Wessex Water framework contractor, Clancy Docwra were replacing 280m of 225mm clay sewer pipe by open cut excavation. On the remaining section we were contracted to provide a trenchless solution to avoid disruption to the gardens.

Our Expandit™ pipe bursting system was chosen because it is non-percussive, meaning that noise and vibration damage to the gardens and the greenhouse next to the launch manhole were avoided. 400mm OD sections of Snapit™ pipe were installed behind the bursting head and the bursting head was recovered from the second manhole. The works were completed in two weeks without any complaint from residents which was a concern because of how close the site was to their houses.

Guided auger boring helps Oldham flood alleviation scheme

Flooding had been affecting houses and a school in Oldham's Rounthorn Road. Our BM500 fitted with a 600mm extension arm was used to install 156 metres of 600mm Naylor Denlok clayware pipe.

The 600mm extension arm and BM500 combination is unique in the world to Perco.

As the site was in the road in front of the primary school, works were carried out to a strict timetable in the summer holidays. The existing sewer was not suitable for upsizing and it was closed off after installing a new 600mm ID pipe by guided auger boring

Operations were carried out seven days per week with extended hours. Bad ground conditions (hardness of 15 SPT) required two dig downs to remove boulder obstructions but works were completed two days ahead of schedule to the delight of the client.



600mm extension arm is lowered into place in Perco's Bohrtec BM500 guided auger boring rig



Auger boring operations from a 2.4 metre caisson shaft

300mm ID sewer installed under rail and road by guided auger boring and timber heading

A high water table and running sand meant that ground stabilisation resin needed to be injected to ensure safe working conditions.

Main contractor Lumsden & Carroll called us in to install the 36m section of 300mm ID sewer as open cut methods had proved unsuitable. The works were launched from a 2.4m caisson, installed by us, at a depth of 6 metres. The site, close to Durham Prison, was on Network Rail land. The new pipe had to be installed under the railway and a road.

The job had several unusual features, including the requirement to auger two separate auger shots, side by side from the same 2.4m diameter caisson shaft, together with the final connection to the client's manhole being made from a timber heading we constructed from the launch caisson at 4 o'clock to the auger direction.

Oxford Hydrotechnics, working under contract to us, injected ground stabilisation resin in a canopy to protect the timber heading and in an 'eye' at the caisson to prevent the road sinking during auger boring for the new pipe.

DONT TELL ANYONE BUT...

Perco's engineers have recently been spotted at a number of top secret locations around the UK. So what have they been up to?



Perco Engineers were spotted at a high security manufacturing facility in the South of England. From what Undercover can gather a sewer in the facility had

collapsed causing flooding within the factory area. Apparently tree roots had made an incursion into the sewer pipe and damaged the pipe walls, allowing water to escape.

Because the affected sewer was in woodland, excavations of slip trenches, and pits for pulling and reception, could not be dug. However, Perco's miniburst system and Snapit segmental pipe were deployed from existing manholes and the pipe was returned to active service in five days.



Meanwhile, other Perco engineers have been seen at a secret research establishment somewhere in the UK. Apparently there had been an

intrusion by tree roots into one of the location's sewer pipes.

Perco's crack EcoCIPP lining team were called in at short notice to prevent further ingress into a 400 metre section of the 150mm ID pipe.

After a CCTV survey of the pipe, the lateral cutter was deployed to neutralise the tree roots and then the pipe was cleaned using water jetting.

Perco's EcoCIPP UV cured in place GRP liner was inserted into the pipe and cured in a five day operation to return the sewer to full service, preventing further incursions.



Perco Engineering Services Ltd
Cornhill Close, Lodge Farm Industrial Estate
Northampton NN5 7UB UK

Tel: 01604 590200 Fax: 01604 590201
Email: info@perco.co.uk Web: www.perco.co.uk

EcoCIPP™, Expandit™ and PressureCIPP™ are trade marks of Perco Engineering Services Limited

