



Project Sheet - Gloucester Road, Bristol

Project Title: Gloucester Road Drainage Works, Bristol

Client Name: Bristol City Council

Completed: February 2013

Duration: 3 weeks

KPIs: the project was completed on time, to budget and to quality standards



Description of Project

The drainage system on this major route had failed, was in need of urgent repair and needed expansion to cope with higher volumes of water. ETM were commissioned by the Council to replace the drainage system in the footways and the carriageways, totalling 185 meters in length. Gloucester Road is a busy commuter route into and out of the City as well as a major bus route into the City and to the Cribbs Causeway shopping Mall and so this project required extensive traffic management and project management.

Our Role on the Project

- Implemented a temporary traffic system – a 3 way traffic light scheme was agreed with network management, the signals were man monitored to ensure a constant flow of traffic into and out of the City.
- Dig pilot holes into the existing utilities system in order to get an exact location of the major pipework on the carriageway
- The main excavation had to be to a depth of 1.2 meters using heavy plant to break through the solid reinforced concrete on the carriageway. The excavated material was divided into inert and hardcore, this saved money for the Council and allowed ETM to recycle the material more efficiently. The excavated material was taken back to our state of the art recycling centre which is designed to crush excavated hardcore and bitumous material using a rotary LT110 crusher.
- The drainage in the footways had been breached by tree roots, causing leaks into the surrounding footway, therefore the materials used in this project had to be long lasting and durable, and the piping used was 300ml twin wall concrete surround ensuring longevity of the pipes. These were laid on a 100mm bed of concrete to protect the pipe from being punctured once back filling started, the concrete surround provided a layer of protection – if future excavations were to take place the concrete would be found before the pipe. It was essential the pipe had sufficient fall so the volume of water could discharge, we used a laser level to ensure complete accuracy.
- ETM had to connect the new drainage system to the existing gullies and also added in extra gullies so the system could cope with a higher volume of water, including runoff from the carriageway, this involved completing works on common land.
- Constructed 1.2 meter diameter Type B man hole for future maintenance and inspections of the new pipe network