

# Case Study:

## M6 Smart Motorway / M42 Junction



### Client:

BBV JV on behalf of Highways  
England

### Consulting Engineer:

CH2M / Arcadis

### Services Provided:

Cable Percussive Drilling  
Rotary Drilling

### Location:

West Midlands

### Value:

£750,000

### Duration:

22 Weeks

### Year:

2017



Strata Geotechnics were appointed to carry out ground investigation by BBV JV ahead of works to upgrade Junctions 2-4 of the M6 to Smart Motorway, this included site investigation, laboratory testing and factual reporting.

The ground comprised made ground over a mix of clays, sands and gravels overlaying mudstones, sandstones and siltstones. Cable percussion drilling was used to obtain detailed information on the strata boundaries and recover high quality samples. Rotary drilling was used to recover samples from the bedrock. Over 3500 samples were recovered from 170 boreholes at depths of up to 35m.

Additional work included dynamic cone penetration tests, carriageway coring, resistivity and redox surveys. In addition, groundwater was monitored remotely from wells installed in a number of the boreholes.

To minimise disruption to the M6 all works were completed during night shifts working under temporary traffic management. Defined works had to be agreed with the principal contractor and the design team and completed in specified shifts. All works had to be completed by 5am allowing the motorway to be reopened no later than 6am. To keep to this demanding schedule Strata mobilised up to 5 drilling crews including supporting engineers to meet peak demand.

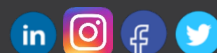
The large volume of subsequent testing, including factual reporting required a dedicated project management team to ensure all processes were handled efficiently and completed on time.

This large and complex SI scheme was finished within the tight timescale primarily because of clear communication with all parties and strong project management of the site works and testing by the Strata project managers.



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