We have just finished the drainage design for Northumberland College's new centre for students with special educational needs and disabilities (SEND).

ENGIE are now starting construction work at the college's Kirkley Hall campus, as part of a multi-million-pound investment plan.
The intention of the extension to the Kielder Building is to create outstanding new, highly-specialised and inspiring resources.
The new extension will include an 800 metre square space over two floors and will be home to a sensory room and a modern and innovative life skills zone to allow students to develop their independence.

Our role

Our role was to provide surface water and drainage design services.

We created a drainage strategy for the planners, which explained how we would deal with both the surface water and the foul discharges.

An underground attenuation structure was designed with a Hydrobrake in the last manhole before the discharge into the local burn.

It was also necessary to divert and intercept some of the existing surface water drainage system around the new extension.

Foul sewer design

We also designed a new foul sewerage system which also involved diverting some of the existing foul sewers and intercepting other sewers from the building.

We utilised a Klargester packaged sewage treatment plant to treat the foul sewage which was then combined with the surface water system and attenuated, before discharging to the local burn

Prior to creating our drawings we modelled the drainage systems using our Causeway Flow software, which allows us to simulate the effects of different storm return periods and durations.
Once we proved that our designed system did not flood for a 1 in 100 year storm with a 40% allowance for climate change we created layout drawings and standard details for construction