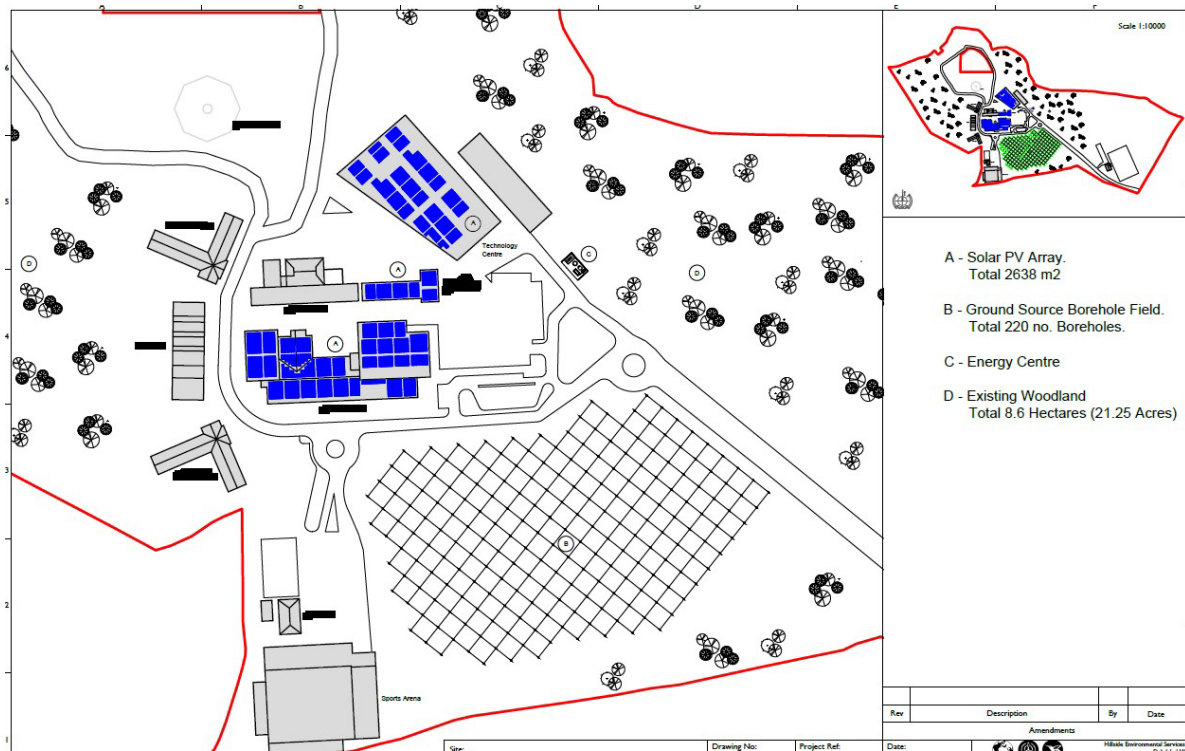


CDM Risk Assessment Report

Mixed Green Energy Management Scheme - Education

What was the Client Requirement?

The client in this case was a college developing its site energy strategy and moving to a full net zero carbon energy use profile. This included 2500m² of roof installed solar panels as well as a 220 Ground Source Borehole field and new multipurpose Energy Centre. The client commissioned an investigation into the feasibility and practical implementation of the scheme. Apogee's contribution was to collect information on existing utilities and report on conflict and Health and Safety.



What was the Apogee Solution?

Using their experience in analysing utility plans and knowledge of how to handle them in relation to new developments, Apogee was to collect all existing utility plans with their market leading utility search report. They were to examine the plans and determine any potential utility conflict as well as report on next steps for the client's program, recommending any surveys and identifying any potential risks. The client instructed an Apogee Full Utility Search, Fastview and CDM risk assessment report.



What were the results of the reports?

The utility search identified 8 affected utilities. Two telecoms companies including BT, Water and Drainage plant. There was also 11kv electrical plant running right through the site as well as gas plant of various pressures. The gas was Medium Pressure in an area of little conflict but the Low Pressure main ran right through the Borehole field to the South of the site. Apogee's Fastview enabled the Apogee consultant and the client to examine the multi layers of utility conflict against the scheme proposals with ease as well as bring together the report findings.





Apogee recommended a PAS 128 QLB survey for the majority of the site in certain areas as well as a perimeter survey to verify the plans. More accuracy and certainty was required in two or three areas most notably to properly understand the conflict at the new proposed Energy Centre but also to accurately locate the gas main running through the borehole field so that a new design could give more certainty of plant protection there. The Fastview provided an ideal base for their consultant to mark up the areas that required survey and to enable the client to visualise what was being recommended. The client will find the specification, the Fastview and report useful in being able to provide a guide for cost effective PAS 128 & HSG 47 survey tendering. Any survey company suppliers will use the deliverables so that what they are proposing and pricing for the client will have accuracy and certainty. All the deliverables suitable for use as part of the clients pre contract Health & Safety pack.

Why was the client delighted?

The Client was delighted by the report as it delivered clarity on what was next from a Health & Safety point of view for the project. The client had comfort that Apogee's experience examining plans day in day out meant that nothing was missed. The reports gave a complete picture of the potential utility conflict across the entire multi use site. In addition, guidance on how the design of the scheme should be amended in order to avoid utility conflict was important to detailed design considerations.

About the client:

Hillside Environmental are a specialist group of independent, like-minded experts who collaborate to help their clients to tackle the challenges of climate change. From sourcing emissions, building business cases, securing finance to project managing and reviewing, they help their clients kickstart and accelerate their clients with their sustainability plans through environmental management.

What did the client say (Testimonial)

That they were delighted with the report being on time and that its contents were exactly what they were expecting – Operations Manager – Hillside Environmental Services.



Who else would buy this?

Our consultancy reports are ideal for Solicitors, Clients and Project Managers, Developers, Local Authorities Consultants, Architects, Design & Build Contractors, Highways Scheme promoters and Surveyors. Anyone involved with a residential or commercial development who would benefit from understanding the risks and costs which come from utilities would be well placed to talk to us. Even if you are not the source of funds for the development and costs savings are of secondary importance to you, we can help you avoid other inconveniences such as delays and reduce the risk of any accidents or strikes of existing plant, as well as improve due diligence and help you achieve compliance under the relevant guidelines and regulations, namely PAS128 and HSG47. We have decades of experience in managing such conflicts across our capable team, a member of whom was on the PAS128 steering committee and who was personally involved in the drafting of PAS128 Quality Level D.

ALARP ANALYSIS

The below is a summary of the prevailing risks and suggested actions.

Utility Name	Utility Type	Severity	Rating	Location	Comment
ENW	Electric	Serious	Unacceptable	Area A	GPR Survey QL B & Trial holes
ENW	Electric	Serious	Unacceptable	Area B	GPR Survey QL B & Trial holes
ENW	Electric	Serious	Unacceptable	Area C	GPR Survey QL A & Trial holes
Cadent LP	Gas	Serious	Unacceptable	Area A	GPR Survey QL B & Trial holes
Cadent LP	Gas	Catastrophic	Unacceptable	Area B	GPR Survey QL A & Trial holes
Cadent LP	Gas	Catastrophic	Unacceptable	Area C	GPR Survey QL A & Trial holes
Cadent MP	Gas	Catastrophic	Unacceptable	Area A	GPR Survey QL B & Trial holes
Coal Authority	Mining	Catastrophic	Unacceptable	Area A,B,C	Mining Report
United Utilities	Water	Minor	ALARP	Road	
United Utilities	Sewerage	Minor	ALARP	Road	
BT Openreach	Telecoms	Minor	ALARP	Area A,B,C	GPR Survey & Trial holes
Vodafone (C&W, Energis, Thus)	Telecoms	Minor	ALARP	Road	
Virgin Media	Telecoms	Minor	ALARP	Road	

Notes	Meaning
Catastrophic	Serious Danger to site operative Health and Safety and mortality and risk of serious program delay. Risk considered unacceptable and actions considered mandatory prior to works commencing on site.
Serious	Danger to site operative Health and Safety and risk of serious program delay. Risk considered unacceptable and actions considered mandatory prior to works commencing on site.
Minor	Risk present need to be managed to avoid utility strike and program delays
Negligible	Risk low after recommended actions
ALARP	As Low as Reasonably Practicable after recommended actions