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**CLIENT  
STORY**



Keynetix  
Geotechnical Data  
Management Awards  
2015  
Winner

Mott MacDonald wanted to model the ground and other disciplines in a BIM Level 2 compliant way.

Here's how Keynetix helped them do just that.



Geotechnical Data  
Software Transformed

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**Mott MacDonald are using these Keynetix products:**

- **HoleBASE SI Professional**
- **HoleBASE SI Extension for AutoCAD Civil 3D**
- **HoleBASE SI Extension for Microsoft Excel**
- **HoleBASE SI Template Studio**

Reviewing and checking of a scheme like this can be difficult and cumbersome, however by using HoleBASE SI and the Extension for AutoCAD Civil 3D the model was quick and easy to update, streamlining the entire process.

## BUSINESS SITUATION

Mott MacDonald Sheffield were working with the Environment Agency on flood alleviation schemes. The client required the delivery of the projects to a Level 2 BIM.

## THE TECHNICAL REALITY

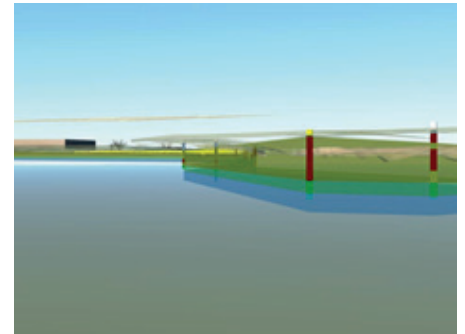
Mott MacDonald were able to show that the geotechnical community have been sharing data for many years using the AGS data format. However, there was no easy way to ensure the geotechnical data was kept up to date and available to the client alongside the other disciplines in a BIM compliant 3D environment.

## THE SOLUTION

From the start of the project, the geotechnical model was set up in **HoleBASE SI**, **HoleBASE SI Extension for AutoCAD Civil 3D** and ArcGIS and a picture of the site was built up digitally using the georeferenced datasets available to Mott MacDonald.

Daily data updates were received back from the site team in AGS Format and imported into the model without delay.

The Ground Investigation Report was created using **HoleBASE SI** and then analysed in **HoleBASE SI Extension for AutoCAD Civil 3D** where sections were produced and exported to SlopeW for analysis. Report graphs were produced using **HoleBASE SI Extension for Excel**.



**HoleBASE SI** and **HoleBASE Extension for AutoCAD Civil 3D** did most of the hard work of creating a sensible ground model which was imported into Infracore and used as part of the communication and optioneering process with the client.

## THE BENEFITS

Mott MacDonald were able to deliver the geotechnical data to the required level using HoleBASE SI and working with the client to deliver a Level 2 BIM compliant project has been hugely successful and built a long term relationship.

The scheme changed on two occasions during the project, however everything previously set up remained in place and the new scheme information was just merged with the existing data, removing most of the traditional time consuming problems associated with scheme changes.

### **Peter Fair, Geotechnical Engineer MOTT MACDONALD**

These included BGS Datasets, Coal Authority Reports, Historical Mapping, Envirocheck/Groundsure datasets, flood mapping, utility mapping and historical borehole datasets which were hyperlinked to historical logs.

The model and workflow were maintained and used to schedule the proposed boreholes in **HoleBASE SI** and **HoleBASE SI Extension for AutoCAD Civil 3D** and all of the work requirements and schedules were sent to contractors using AGS Files directly from the system.