



01 **British Antarctic Survey outer jacket\***

03 **In Antarctica... making friends with the locals**

05 **British Antarctic Survey work boots\***

\* Jacket, boots and goggles kindly provided by the British Antarctic Survey

02 **Halley VI structural plan**

04 **Halley VI construction and completion**

06 **LEGO model for use in school demonstrations**

## GEMMA CLARKE BUILDING ENGINEERING

Name  
**Gemma Clarke**  
Job Title  
**Senior Structural Engineer**  
Location  
**London, UK**  
Degree  
**BEng (Hons) Civil Engineering, University of Bath**  
Joined AECOM  
**2004**



### Q1. Describe your role

I design building structures, then create drawings and specifications for construction. Working with a team of design architects, mechanical and electrical engineers, CAD technicians and contractors, I model the structures in various materials such as concrete, steel and timber, then calculate the size of structural components with help from computer analysis. The result is a set of coordinated designs to present to the client.

### Q2. Describe a typical working day

My job is varied – I'll spend a day in the office, analyzing a structure, determining its forces and deflections, or working with the design team to go through project issues and coordination. Or I'm out on site overseeing construction projects. Beyond my project work, I'm also part of our school link team, giving talks to students about being an engineer, and running activities to show the sort of thing we do.

### Q3. What surprised you most about working at AECOM?

I'm part of a tight-knit team here in the UK. But it's really good to know that, in the background, AECOM gives us a wealth of experience and knowledge to draw on. I was also surprised by the amount of travel. I've been really lucky, with trips to Germany, Cape Town and a four-month visit to Antarctica.

### Q4. What's been most challenging?

A building is like a 3D jigsaw puzzle. It requires in-depth planning and teamwork. This throws up all sorts of challenges, but one project that really stands out for me was the Halley VI project – building a research station in Antarctica. We had to consider how to relocate the station across the ice, raise the structure up every year to overcome the snow accumulation, and build it when the environmental conditions only allow for a construction season of two months a year! This all happened during my first year in the company – it was an amazing learning experience.

### Q5. Is there good career development and other support at AECOM?

The support here is great. When I joined, I was enrolled in a graduate development program. With the help of a mentor, I have now received full accreditation from the Institution of Civil Engineers. This is another important step in my career development. AECOM also has an academy, which offers structured training to everyone within the company. My aim is to develop my skills and knowledge as an engineer, and working for AECOM I'll be able to achieve it by working on exciting projects.