

# In the company of INNOVATORS

**ATKINS**

Member of the SNC-Lavalin Group



**Business area:** Infrastructure

**Requirements:** On track to achieve a minimum of a 2.2 MEng in Civil Engineering, Structural Engineering or a relevant degree discipline.

## Our teams and what they do

### Building Structures:

**Industrial year placement locations:** Bristol, Epsom (Surrey)

**Summer placement locations:** Bristol, Epsom (Surrey), Glasgow, London, Warrington

The Atkins Building Structures practice are looking for talented structural engineering students to help deliver some of the world's most challenging and exciting engineering projects across sectors including; Education, Commercial, Residential, Defence, Energy and Transportation.

We apply technical excellence to the built environment and deliver creative solutions to complex problems to make a more sustainable world. Our collaborative and diverse team of engineers utilise an intelligent digital approach to efficiently design using steel, concrete, masonry and timber, as well as more innovative materials and modern construction methods.

As a Structural Engineering Placement Student within our team, you may be involved in:

- Working within multi-disciplinary teams to develop and deliver designs of buildings and infrastructure. Your deliverables will include technical and carbon calculations, reports, whole life cycle assessments, drawings, models and presentations. Your creative input will be sought from day one into all project stages from concept design through to detailed design.
- Representing Atkins when supporting with structural inspections on site and presenting meetings.
- Assisting project managers with design leadership and day-to-day management of project programmes, budgeting and stakeholder coordination.
- Engineering support during the construction stage by reviewing drawings for conformance with design and specification and observing construction procedures under the guidance of experienced senior engineers.
- Researching and analysing alternative design approaches to develop sustainability led solutions.

### Civil Infrastructure and Water:

**Industrial year placement locations:** Birmingham, Epsom (Surrey), London, Warrington

**Summer placement locations:** Belfast, Birmingham, Bristol, Derby, Epsom (Surrey), Exeter, Glasgow, Leeds, London, Swansea, Warrington

Our civil engineering teams work together to create all kinds of infrastructure, from smart cities and large-site developments, nuclear power stations and dockyards, to water and wastewater treatment works, pipelines and water networks. Our people plan, design, and oversee construction on projects of all sizes large and small, in the UK and internationally. We enjoy a variety of work, collaborating with clients across sectors including energy, water, cities and development, aviation, and defence, to deliver high-quality, sustainable, and innovative solutions.

Joining our team, you might help to tackle pollution with innovative wastewater treatment and sustainable drainage systems, design residential and commercial urban development schemes, coordinate complex

utility routing and functional road networks, or deliver essential drinking water systems to communities – all making a positive impact to people's lives.

You'll be supported to develop general civil engineering skills across water and wastewater, utilities, drainage and physical security, giving you the flexibility to work across various industries, develop your collaboration skills in multidisciplinary project teams and build your stakeholder management techniques with senior management and the Client.

The key responsibilities include:

- Supporting on a wide variety of civil engineering challenges, which could include pipeline construction, Sustainable Urban Drainage Systems (SuDS), pumping stations, road and highway design, utilities design, physical security measures, structures, and hydraulics.
- Collaborating and engaging with project stakeholders, Clients, other engineering disciplines and Atkins colleagues both UK and overseas.
- Developing technical reports, drawings, calculations, and presentations.
- Identifying opportunities to apply sustainable practices to actively reduce the carbon impact of projects - contributing to the business' Net Zero targets!
- Understanding and applying industry and company design standards and guidance.
- Actively considering health and safety as a core principle within your role, both on-site and in design.
- Engaging and promoting digital and innovative practices to gain value for the Client.
- Contributing to continuous quality improvements

### **Civil Major Projects and Structures:**

**Industrial year placement locations:** Birmingham, Epsom (Surrey), London, Warrington

**Summer placement locations:** Belfast, Bristol, Epsom (Surrey), Exeter, Glasgow, London, Swansea, Warrington

Our civil structures teams work globally on all kinds of infrastructure, from nuclear power stations to defence facilities to reservoirs and tidal barriers. Our people plan, design, and oversee construction on large and complex projects, in the UK and internationally. We enjoy a variety of work collaborating with clients and stakeholders across sectors including energy, defence and water to deliver high-quality, sustainable and innovative solutions.

Joining our team, you could be planning the construction of a nuclear power station, solving complex engineering challenges of a submarine maintenance facility or designing a major tidal barrier to protect homes and businesses from flooding – making a positive impact on both people's lives and the environment.

You will be supported to develop your civil engineering skills in structures and construction, giving you the flexibility to work across various industries in multidisciplinary project teams. Our team supports and actively encourages the progression of Civil Engineering graduates through our Institution of Civil Engineers (ICE) training scheme.

Key responsibilities include:

- Supporting design teams in some of the UK's largest projects. Contributing to the design of complex concrete and steel structures utilising seismic, 3D reinforcement detailing or blast analysis.
- Collaborating and engaging with project stakeholders, other engineering disciplines and Atkins colleagues both UK and overseas.
- Developing technical reports, drawings, calculations and presentations.
- A Identifying opportunities to apply sustainable practices to actively reduce the carbon impact of projects and the industry.
- Developing an understanding of industry and company design standards and guidance.
- Actively considering health and safety as a core principle within your role, both on-site and in design.
- Engaging and promoting digital and innovative practices to innovate the industry.
- Contributing to continuous quality improvements

### **Ground Engineering:**

**Industrial placement locations:** Birmingham

**Summer placement locations:** Birmingham, Bristol, Cardiff, Cambridge, Croydon, Epsom (Surrey), Glasgow, Leeds, London, Warrington

**Degree requirements:** On track to achieve a minimum of a 2.1 Bachelor's / BEng in Engineering Geology and Geotechnics or 2.2 Master's / MEng in Ground Engineering, Civil Engineering, Engineering Geology, Soil Mechanics, Geotechnical Engineering, or related subject

As a Geology or Geotechnical Engineering Placement Student, you could be involved in one of the most exciting sectors in civil and environmental engineering. You'll help to support and deliver the technical aspects of a variety of engineering and multidisciplinary designs across a range of challenging and exciting projects in the UK and internationally.

Our Ground Engineering team is committed to providing world class geotechnical and engineering geology services to infrastructure and global energy clients, focusing on the engineering behaviour of the ground for complex new build and asset life extension projects. You could get involved in a broad range of activities including site investigation, 3D ground modelling, geohazard & terrain evaluation, earth structures, foundation design and ground improvement, in both the onshore and offshore environments.

Key duties include:

- Desk studies and site reconnaissance
- Site walkovers and inspections
- Specification, planning and procurement of ground investigations
- Supervision of ground investigation works on site
- Checking of factual geotechnical data obtained from ground investigations and associated digital data management
- Development of conceptual and observational ground models
- Writing of interpretative reports and derivation of geotechnical parameters for design
- Geotechnical design and associated reporting

### **Tunnelling:**

**Industrial year placement locations:** Epsom (Surrey), London

**Summer placement locations:** Epsom (Surrey), London

**Degree requirements:** On track to achieve a minimum of a 2.1 Bachelor's / BEng or 2.2 Master's / MEng in Civil Engineering, Mining Engineering, or related subject

As a Tunnelling Engineering Placement Student, you could be involved in one of the most exciting sectors in civil and environmental engineering. You'll help to support and deliver the technical aspects of a variety of engineering and multidisciplinary designs across a range of challenging and exciting projects in the UK and internationally.

Our team provides technically excellent engineering design of tunnelling, underground, and heavy infrastructure, particularly focused on mass transit, rail and major project programmes. You'll be supported by a team with expertise in assessment of ground movements, design of complex foundations and 'ground-contacting' structures, in addition to the assessment of ventilation and fire life safety aspects of utilising underground space. Here you'll get the opportunity to take on a wide range of interesting activities, including site work, design, asset impact assessments, life cycle/risk assessments and project management.

Key duties include:

- Supporting with tunnelling design and associated reporting
  - Micro-tunnelling (HDD, Pipejacking, direct pipe)
  - Large tunnels (TBMs, SCL, Square works..)
  - Ground movement assessment and impact assessment
  - Tunnel Principal Inspection and Asset management
  - Shafts, tunnel's portals ancillary structures
- Assisting with feasibility studies
- Specification, planning and procurement of tunnels projects
- Working with specialist software to support planning programmes

### **Water Management Consultancy:**

**Industrial year placement locations:** Birmingham, Bristol, Epsom (Surrey), Oxford, Peterborough, Swansea, Warrington

**Summer placement locations:** Glasgow

**Degree disciplines:** Environmental Science, Environmental Economics, Environmental Engineering, Geography, GIS, Hydrology, Hydrogeology, Maths, Physics, Civil Engineering, Aquatic Ecology, Marine Sciences, Water Management

Operating at the interface between people and the water environment, we work with our clients in the UK and around the world in providing innovative design solutions, research and advisory services for a sustainable future.

Our key services include: water resources and water quality planning; hydrogeology and groundwater management; flood risk management; natural capital and environmental economic appraisal; hydrology; hydraulic and coastal flood modelling and flood risk scheme appraisal; coastal and marine environmental appraisal; integrated catchment management; hydromorphology; river restoration, aquatic ecology, natural flood management and nature-based solutions; environmental, hydraulic and civil engineering; regulation and assurance; strategic asset management; and data analytics.

Day to day activities include:

- Contributing to projects with a water management focus, particularly alongside one of our key services, as well as a wide variety of projects across the environment business.
- Field/survey work in support of projects
- Providing input to the development and refinement of new and existing digital tools that quantify and illustrate environmental impacts and the value of nature to people in a clear and visual way
- Supporting with wider data analysis and report writing as part of project work, including creation and presentation of information in GIS
- Involvement in supporting business development through our win work/ bidding process, in addition to the successful delivery of key tasks on projects
- the role is focused on achieving and delivering technical excellence

**To apply, please return to the main job specification**