

My Career: Caoimhe Marley, Site Engineer with Sisk

A problem-solver

Name: Caoimhe Marley.

Age: 27 years old.

Lives: Dundalk, where I am currently working on the construction of a new lab for WuXi Biologics.

Job title: Site Engineer with Sisk

Salary bracket: €30-40,000

Education background: Went to Mercy Mounthawk Secondary School in Tralee, which is a mixed school. I studied English, Maths, Applied Maths, Physics, Geography, Art and Technical Graphics.

I'm dyslexic so even though I can't do simple maths in my head and my spelling isn't great, I love problem solving and with a calculator can work through any problem.

I first started out in college studying Architecture (joint CIT/UCC programme) but changed into Structural Engineer in CIT. I loved my course, it was very challenging at times but the lecturers are fantastic and always have time to help you.

I was part of setting up the Civil and Structural Engineering Society four years ago, which in the last three years have won best academic society. It was great being part of the society as it brought the department together and you could socialise and learn from other years.

From this society I got involved with the Young Engineering Society (YES) Cork where events were co-hosted during the years.

Since I've finished college, my training has still developed through Sisk's new graduate programme Building Excellence, where each month we have training days to develop our skills learned in college. Even during the lockdown the courses have continued online which is great for when I return to site.

Hobbies: Cycling — lots of it! Was due to cycle Mizen to Malin again this year but due to Covid-19 that's on hold until next year. Love to go hiking, swimming, kayaking and baking.

Describe your job in five words: Exciting, challenging, innovated, educational, fun.

Describe yourself in five words: Caring, talkative, precise, creative, team-player.

Personality needed for this kind of work? I think you need to be outgoing. As a supervisor on site, you need to ensure the task is completed safely and to a high standard. It's important you understand the task given by your supervisor and ask questions if you don't. You need to be professional as you work closely with the clients team and have good organisational skills as you may have a few tasks to supervise at the same time.

How long are you doing this job? For two years this September.

How did you get this job? I always had an interest in design and construction, from a young age I was always watching Property Ladder and Grand Designs with my mom and sister.

When I first started out in college, I was studying Architecture, which is a joint CIT/UCC programme. I enjoyed some aspects of it but I knew it wasn't for me. One of my favourite

modules was engineering so I decided to change into Structural Engineer in CIT. But don't let me put you off architecture as my sister studied it and now works in New York City.

What drew me to engineering is the problem-solving and working to a solution. In second year I was able to take a work placement module for the summer so I went with Moriarty Civil Engineering Contractors and was based in North Kerry on the construction of a new wind farm. I really enjoyed it as it was my first experience on working on site.

Structural engineering commonly prepares students for working in a design office — basically the maths behind all structures to ensure they stay standing. But I knew after my work placement I wanted to continue working on site as a Civil Site Engineer. It's a great way to see how the calculations I learned to do in college are assembled together on site.

In third year of college I went on placement with John Sisk & Son, which is one of the largest construction companies in Ireland. I was on the BioCork2 project in Janssen, Ringaskiddy, which was a 100% extension around an existing pharmaceutical plant.

At this stage the job was only starting off at pre-construction stage with 30 people on site but when I returned in September, 2018, after graduating it was a large construction site with up to 1,300 people a day. It was amazing to see the organisation that went into running such a large project and as we worked in a large open plan office you had a wealth of experience from civil, to mechanical, to electrical, and construction safety to learn from.

My role was to co-ordinate construction work in the existing plant. Along with my team we would have daily meetings with the client's team and the contractors to run through the day's activities, highlight risks, and manage the task. It's vital the existing plant's production line isn't interrupted and their staff can work in a safe environment. This role involved a lot of micromanagement and co-ordination.

With my experience working in an operating pharma plant, I was asked to work in Allergan in Westport. This plant is the largest manufactory of Botox in the world and as they had a series of audits we had to ensure the construction work hit the key dates on the programme while delivering a high standard of finish.

Since the lockdown I've been working from home and will soon start in the construction of a new lab for WuXi Biologics in Dundalk.

Do you need particular qualifications or experience? To study engineering, you need to be good at maths, and like it. Physics and applied maths help but aren't essential. A lot of students feel you need technical graphics, engineering, and construction studies to do engineering but you don't. It helps but in first year the focus is getting everyone to the same level so you'll learn these things. I qualified in Structural Engineering which is a Level 8 degree over four years. To work as a site engineer

you can also do Civil Engineering, which is three years and Level 7, with the option of two years after for the Level 8. Work experience is included in the course but if you are interested in engineering you should contact a local contractor and ask to work with the engineer for the week during mid-term breaks.

The benefit of going with a large company like Sisk would allow you to see the other disciplines in construction such as mechanical and electrical engineers, quantity surveyors, planners and health and safety personnel.

Describe a day at work: When on site the day starts with a White Board Meeting. The site agent holds the meeting with the contractor supervisors in attendance. The contractor is the trade working on site and may be an electrician, a mechanical specialist, a groundworks contractor, a fire alarm consultant, etc. They go through each area of the site, which is split into zones as it is easier to manage. A zone may have only one contractor working in it or three to four different groups. They may be working underground or at heights. It is important each task is managed so the contractors have the space to safely carry out their work and have the follow on trade ready when the first task is complete. As the job develops, the risk in each zone changes so it's important the supervisor understands this and relays the information to their co-workers.

After the meeting, as I am a Sisk Supervisor, I go around to the different trades in my work zone to ensure they have the correct paperwork for the task. They may be doing welding which is 'hot works' so the smoke heads must be turned off and they would need a permit to carry out the task. A permit is completed by the contractor and checked by the Sisk Supervisor. It's like a check sheet to ensure all the controls are in place from the start. When the paperwork is signed off the task can commence. I also may walk upcoming works with the client and run through what concerns they may have.

As Sisk manages contractors, I then would walk the works with the contractor and highlight any comments the client may have. From this a RAMS would be developed — a Risk Assessment and Method Statement that outlines the task and how it will be completed step by step. Everything is evaluated, from how the materials are brought to the site (if by truck, how you get them off the truck? Is there certain times you can unload? Where can you store the materials?), the route construction personnel are to take to get to work, the equipment to be used, etc. When the RAMS is ready it gets review by Sisk safety and by the client's safety team and if approved the contractor can start the next phase of work.

Part of my day would be set aside to responding to emails to the design team if we required more information or following up on orders to ensure we stay on programme. Depending on the day, you may have some meetings to sit in on which are great ways to learn on what challenges are on site and how best to resolve them.



Site Engineer, Caoimhe Marley.

As the day goes on I'll be down to the site often to ensure the work is going smoothly and see are we prepared for upcoming work.

How many hours do you work a week? About 47.5 hrs

What do you wear to work? The Sisk standard safety personal protective equipment (PPE) is: a hard hat, safety glasses, long high vis sleeved top, site gloves, and steel cap boots.

Is your industry male or female dominated? Male dominated, I think across all construction sectors women are in the minority.

Does this affect you in any particular way? Not really as in primary, secondary school and college I've always been mixed with boys. It's obvious that you may be the only girl in the canteen but I've always been treated with respect and included with my colleges. I do notice men stop to let you go first and offer to carry surveying equipment which is great as some of that stuff is heavy and awkward to hold! But my role is no different to the other site engineers and we get offered the same opportunities.

Is your job stressful? How? Rate it on a scale of 1-10: 6/7, some days can get very busy.

Do you work with others or on your own? With a team, depending on the project it varies. In BioCork2 there was 40+ and in Allergan five.

Best bits: Every project is different, new; area, role, responsibilities, colleagues, client, technology. It's great to see a project through from a green field site to a finished building.

Sisk safety standards also make it a great company to work for because as a supervisor you are putting people to work and want to make sure they return home safely at the end of the day.

Worst bits: Days can be long, and even with all the planning some tasks don't go to plan.

Advice to those who want your job? Go to a site and work with the engineer for two to three days and ask loads of questions.