

Chirag Shingadia | Transport for London

Third prize in Matchtech's sponsored competition:

Martin Roach Development Report Writing



What inspired you to pursue a career in engineering?

As a civil engineer you have the ability to directly impact people's lives through the development of infrastructure; being able to directly benefit society both socially and economically is hugely fulfilling. In addition, knowing the impact construction has on the environment, being a civil engineer means you can directly impact design and construction processes to maintain the environment for future generations to come.

What are your future aspirations?

I am aiming to continue to develop as an engineer. I would like to become Chartered shortly after rolling off the TfL graduate scheme and get involved in one of the major infrastructure projects that need to be delivered in the London Underground's specialised and safety critical environment.

Can you please give us an overview of the project you entered for the competition? What aspects are you most proud of and what were the challenges?

My report was formed around my experiences with the London Underground Pumps and Drainage team. A major aspect of my time with the team was based around sustainable drainage design solutions. I was tasked with designing a bio retention planter box that can be utilised on rainwater downpipes all over the London Underground network to provide water: quantity, quality, amenity and biodiversity benefits. The two biggest challenges I faced included the fact I had to tailor the CIRIA SuDs manual guidance to meet the objectives priorities by the London Underground, along with the fact I had to design a 'generic'

planter box that can be used in a wide variety of scenarios.

What new engineering skills have you developed during the past year?

In the past year, I have developed significantly in many elements of engineering design including understanding the different interfaces involved and knowing that designs produced in an office environment without site-specific understanding can be unworkable when it comes to construction. I have also learnt and understood the huge responsibility we have as civil engineers to hold sustainable design and construction at the forefront of our decision making.

Given the current drive for more young people to study STEM subjects to support the growing engineering skills gap, how would you inspire today's young people to enter the industry?

It is all about showing the younger generation just how fun and fulfilling a career in engineering really is. It is one of the only industries where you can be involved in a project from design stages all the way through to delivery, to then using the infrastructure or asset yourself. I believe that the best way to showcase our industry to the younger generation is by being proactive and engaging in the way we pitch our industry and breaking down the common misconceptions and barriers that are associated with it.