



LeeMcCullough
Consulting Engineers

Civil Engineering

Civil Engineering at LeeMcCullough

We have been providing Civil and Structural Engineering services to our clients for over 40 years. During this period we have gained considerable experience in the design of civil engineering works including site works, estate roads, sustainable urban drainage systems (SUDS), traditional drainage systems.

Site works and estate roads

We have invested in the latest site development software that enables us to transform a site survey into a 3-D model. Into this model we can place site features such as the ground floors of the proposed buildings, roads, paths and services. By including all this information into one model the amounts of cut and fill can be minimised, co-ordinated drawings and sections produced and service clashes checked for.

Estate road design has become a complex task as we strive to develop a better urban environment. Speed control techniques have evolved from the single speed ramps and 'home zones' are now seen as the safest places for our children.

We can design roads, junctions and speed control features, produce full set out details, check sight lines and check gradients from pavements to building entrances ensuring compliance with Building Regulations Part M.

SUDS and Drainage

The introduction of SUDS has meant that Engineers have had to come up with increasingly innovative drainage designs to combat changing weather patterns, dilapidated drainage systems and evolving local authority requirements.

We believe that there are several elements to the success of any drainage scheme. These are early and meaningful discussion with local authority Engineers, investment and understanding of the latest computer modelling software and keeping up to date with the latest developments in SUDS.

At LeeMcCullough we use the Windes drainage modelling software to design and optimise all our foul and surface drainage networks. For surface water networks this software allows for the integration of SUDS features such as swales, attenuation tank, ponds, permeable pavements, etc into the design thereby reducing the volume of runoff and impact on the environment.

Our engineers regularly attend CPD training courses to keep abreast of the latest development in SUDS and we maintain a comprehensive library on the topic. Our drainage designs software links seamlessly with our site development software resulting in a fully co-ordinated design.

Some recent LeeMcCullough projects

Tyrrelstown housing

3.5km estate roads & attenuated Drainage

Dunleer housing

Estate roads, home zones and attenuated drainage

Ballyogan Depot

Pavement design & attenuated Drainage

Country Crest

Retention pond design

Dun Laoghaire Harbour

Pile repairs & marina development

Laurel Avenue Housing

Permeable pavement drainage design

Ballymount Depot

Foul water runoff management system design

Civil Engineering can make up a large proportion of the work on any project. At LeeMcCullough we focus on providing timely and cost efficient solutions backed up by our over 40 years of experience in Civil Engineering.

In recent years we expanded our capabilities in the Civil Engineering through investment in software, CPD and training to provide economical solutions in the following areas:

- Road design
- Drainage design
- SUDS design
- Cut & fill
- Marine works
- Site investigation arrangements

At LeeMcCullough we always seek to identify and resolve issues early, innovatively addressing demanding site conditions and delivering our solutions on time and cost efficiently.