

Architectural Engineering

Architectural Engineering is about the complicated elements through secondary elements which are required to provide any development with “architectural joie de vivre.”

The balconies, handrails, privacy screens, staircases and main safe systems, often poorly considered by the project Structural Engineer, and push to the side because they present complexity but are little problems not big problems. These little problems become big problems if not properly considered, they generally rely on bespoke elements in bespoke conditions. Sometimes made more complex by the lack of consideration in the frame designs. It is an area which can only be resolved by experienced Engineers with the knowledge of how buildings work, what affects to consider and the selection of materials. It also requires Engineers to not only carry out designs but also to be in continuous liaison with their clients so that designs can be economic – meet the end clients needs, or if necessary to be able to have confidence to advise the weakness of architectural concept and to suggest the way ahead prior to carrying out detail design.

Designs are undertaken in steel, stainless steel, aluminium, timber and glass with concrete brickwork also being amongst the supporting elements.

The knowledge of connection systems is critical whether bolts, anchors, self-tapping screws, rivets etc.

Bespoke problems require bespoke answers and willingness to consider alternatives.

These problems can also be made worse by the needs of contractors to complete larger items of work and then to discover that completion means that the staircase has to be constructed after the building is enclosed and has to be erected in parts.

