

# Structural Engineers Registration Limited – supporting structural design certification in Scotland

As Structural Engineers Registration Limited marks 20 years of administering a building design certification scheme in Scotland, we take a look at the Scottish building control system and how the scheme works.

Structural Engineers Registration Limited (SER) began operating in Scotland on 1 May 2005, appointed by the Scottish Government's Building Standards Division to administer a scheme for Certification of Design (Building Structures). The SER scheme was established by the Institution of Structural Engineers, with the support of the Institution of Civil Engineers (ICE), in response to the Building (Scotland) Act 2003.

SER currently operates in two jurisdictions – Jersey and Scotland – with each scheme overseen by a registration board. The Scottish Registration Board is made up of experienced chartered engineers with knowledge of certification and the Scottish building control system. The board is responsible for assessing applications for membership of the scheme and conducts audits of members' certification activities.

In this article, we look at the Scottish building control system and the role of SER and its Approved Certifiers of Design in this process.

## How does the building control system operate in Scotland?

Scotland operates a pre-emptive building standards process in which a 'building warrant' has to be granted before work can begin on site. A building warrant is usually required for the erection of a new building, or to convert, alter, extend or demolish an existing building (although demolition is outside the scope of the SER scheme).

A building owner wishing to carry



Construction projects in Scotland require a building warrant before works can commence

out construction work must submit an application for a building warrant to the local authority building standards service, known as the 'verifier'. The application must include plans/drawings that allow the design to be approved. If the local authority is satisfied that the design complies with the building regulations, it will issue a building warrant.

Once a building warrant has been issued, work may commence on site, with inspections carried out by the local authority building standards service. The work has to comply with that described in the building warrant in order for a completion certificate to be accepted, with the building owner or developer (known as the 'relevant person') responsible for ensuring that

the work is carried out competently. On submission of a completion certificate, the local authority will assess whether any points must be addressed before the certificate can be accepted. A new or converted building or extension cannot be occupied until the certificate has been accepted.

If there are changes to the design during the construction stage, an amendment to building warrant application must be submitted to the local authority building standards service.

## What is the role of Approved Certifiers of Design?

The Scottish building standards process also allows for the use

of ‘approved certifiers’ – qualified professionals who are able to certify that the work complies with building regulations. Certification schemes cover structural design, energy design and aspects of construction (electrical installations or drainage, heating and plumbing installations). Where an approved certifier is used, they will issue a certificate of design or construction to be submitted alongside the building warrant application or completion certificate, respectively.

In the case of structural design, the building owner may appoint an Approved Certifier of Design (Building Structures) – a chartered structural or civil engineer who is a member of the SER scheme. Membership of the scheme enables the engineer to certify that the structural design complies with the building regulations. They will issue a certificate of design to be submitted as part of the building warrant application. The local authority verifier will consequently not be required to independently verify the design’s compliance.

If the building owner subsequently informs the Approved Certifier of Design of design changes during the construction stage, they must assess whether the amended design changes or affects the certified work in any way. In the event that it does, they must verify that the amended design still complies with the building regulations and issue a new certificate of design to accompany an application for amendment to building warrant.

### Why can certification be relied on?

An advantage of the Scottish approach is that every SER-certified project in Scotland has had the structural design checked by an experienced chartered structural or civil engineer before work begins on site.

However, the use of approved certifiers transfers responsibility for checking aspects of the design and construction of a project from the verifier (local authority building standards service) to building professionals involved in the project. Confidence in the process therefore relies on robust and well-audited certification schemes.

SER’s *Guidance Note 1* explains that: ‘The certification system is grounded on the principle that suitably qualified and experienced building professionals can accept responsibility for ensuring compliance with the building regulations, without the

## MEMBERSHIP OF THE SCHEME ENABLES THE ENGINEER TO CERTIFY THAT THE STRUCTURAL DESIGN COMPLIES WITH THE BUILDING REGULATIONS

need for detailed scrutiny of designs or inspections by local authorities, provided they are employed by reputable firms that operate a system of careful checking’.

For structural design, the SER scheme interprets ‘suitably qualified and experienced’ to mean a Fellow, Member or Associate of the IStructE (i.e. FIStructE, MIStructE or AIStructE) or a Chartered member of the ICE (i.e. CEng MICE or CEng FICE) with a minimum of five years’ recent relevant experience of the design of building structures at an appropriate level, and who can demonstrate knowledge and experience of the Scottish building standards system introduced by the Building (Scotland) Regulations 2004.

Once an applicant has been admitted to the scheme, becoming an Approved Certifier of Design, they will be required to submit an annual Continuing Professional Development return and will be subject to regular audit of their certification activities.

Firms or organisations may also register with the scheme as an Approved Body to supply certification services. An Approved Body must employ at least one Approved Certifier of Design (Building Structures) and must foster an environment in which good certification practice is encouraged.

Audits are conducted by the Scottish Registration Board, with support from an Audit Pool made up of suitably qualified and experienced chartered engineers. An audit will usually be conducted by two auditors and seeks to ensure that members are adhering to the requirements of the scheme, with consistent standards of performance, and maintenance of adequate records.

### What is SER’s role?

The function of SER is to administer the scheme, with particular importance devoted to the auditing process, which is central to the robustness of the scheme. SER also deals with any

complaints and appeals, and reports to the Scottish Government’s Building Standards Division on membership of the scheme and the certificates issued. The Scottish Registration Board, reporting to the Directors of SER, assesses the suitability of individuals and firms for membership and renewal of membership, and evaluates audit reports on the practice of certification by members.

### Are there plans to strengthen the Scottish system?

Although the Scottish building standards process is largely viewed as robust, events such as the Grenfell Tower fire in London and problems uncovered in 2017 in the construction of schools in Edinburgh prompted the Scottish Government to review the process.

While certifiers and the verifier on a project are required to be competent, this may not be the case for the relevant person (building owner), who is responsible for ensuring that the work is done competently and that necessary inspections and checks are carried out at the appropriate time.

To address this issue, the Building Standards Futures Board is developing a ‘compliance plan’ approach, initially for ‘high-risk buildings’, which is intended to improve procedural compliance with approved building warrant plans. Under this approach, the local authority will issue a compliance plan, with a new role of ‘compliance plan manager’ responsible for ensuring that necessary inspections and checks are carried out and recorded.

### Find out more

More information about the Scottish building standards process and the SER scheme can be found at the following links:

- | *SER Guidance Note 1: Background to the Scheme*  
[www.ser-ltd.com/ser-scotland/resources/guidance-notes/guidance-note-1-background](http://www.ser-ltd.com/ser-scotland/resources/guidance-notes/guidance-note-1-background)
- | Scottish Government *Building Standards Customer Journey*  
[www.gov.scot/publications/building-standards-customer-journey/](http://www.gov.scot/publications/building-standards-customer-journey/)
- | Building standards - Futures Board Programme: *Compliance plan approach workstream*  
[www.gov.scot/publications/building-standards-futures-board/programme/pages/compliance-plan-approach-workstream/](http://www.gov.scot/publications/building-standards-futures-board/programme/pages/compliance-plan-approach-workstream/)



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