

Scheme for Certification of Design (Building Structures)



Guidance Note 3 – Revision A Options for Certification

In order to download a certificate from the SER website the certifier is required to record the method that has been used to certify the design in Schedule 2 of the certificate.

This schedule is **not** intended as a qualification of the extent of certification (SER certificates certify the entire building in respect of the structural requirements of Regulations 1.1 and 1.2). Nor is it intended as a scoping exercise, or check list, for the project and should not be construed as such. The schedule is intended to record whether the certifier has certified common elements of the building as designer, checker, on the basis of a review, or for elements outwith their competence and experience where they have relied on the advice of a third party expert or specialist.

The certifier can choose between a number of options, which may be used in conjunction, for undertaking the certification for a project. Whichever option is chosen, for each aspect of the design, it must be recorded along with the reasons for that choice for future audit. This Guidance Note is intended to explain the intention behind the options offered by the system.

Certifiers are reminded of their holistic responsibilities in respect of the compliance of the whole building and in particular of the need to carefully consider the interfaces and interaction between various building elements. This is of particular importance where they have fulfilled different roles in respect of the design of various elements of the building.

It is important to appreciate that certification and checking are separate activities. Certification cannot be delegated to a third party while design checks can only be undertaken by an individual with the necessary experience in the particular aspect of the check. Further guidance on certification checking is provided in Technical Bulletin 2.

Appendix A, while not exhaustive, has been provided to assist the certifier identify structural elements that may be encountered on a project and the information that will be necessary for the certifier to undertake the task.

Certifiers should be aware that all items listed on any Schedule 1 (Contractor Designed Details) are still included in the “coverage” of the certificate and that the certifier is in effect confirming that the design of these elements complies with the appropriate Regulations and Technical Standards through the inclusion of a sufficiently detailed performance specification in the Warrant application package. Building Elements listed in Schedule 1 should therefore also be included in the Schedule 2 of the certificate, along

Scheme for Certification of Design (Building Structures)

with the intended option for confirming compliance (in accordance with this Guidance Note).

Option	Notes on Suitability
<p>Option 1 Certifier Is also Designer</p>	<ol style="list-style-type: none"> 1. In this case an independent check of the design must be also be undertaken prior to certification in accordance with the Approved Body's structural checking practice – except for buildings falling within Risk Category 1 (as defined in Technical Bulletin 2) where option 5 should be used. 2. Certifiers may only design those aspects of the building for which they are suitably experienced.
<p>Option 2 Certifier is also checker</p>	<ol style="list-style-type: none"> 1. In this case the certifier cannot also be the designer (except for buildings falling within Risk Category 1 (as defined in Technical Bulletin 2). 2. Certifier may only check those aspects of the design for which he/she is sufficiently experienced. 3. The certifier may be checking the work of other employees in the same company or may be carrying out a detailed check on a design prepared by others.
<p>Option 3 Certifier made independent assessment</p>	<ol style="list-style-type: none"> 1. It is a requirement of the scheme that the certifier should be fully familiar with the design of all elements of the building deemed to be covered by the certificate and is able to consider the interaction of these elements and the building in a holistic manner. This is best achieved if the certifier has been either the designer or checker of each element however it is recognised that, particularly for larger projects, this is not always practical. 2. Option 3 is to be used for elements of the building where the certifier has not acted as designer or checker but is sufficiently experienced in the design of such elements to be able to carry out a review of the design and certify on the basis of his own knowledge and experience. This option should also be used where senior members of staff are reviewing work carried out by staff under their control but where detailed design checks have been carried out by others (e.g. very large projects where 1 individual cannot carry out or check all design work). 3. Option 3 is also appropriate when reviewing designs carried out by specialist sub-contractors where the certifier has the required competence but has not carried out a detailed design check himself (although in such cases he should have made enquiry as to the qualifications of the designer and checker and made a judgement on this basis as to the extent of the review he has to undertake). 4. This option is also appropriate for reviewing the scope and adequacy of reports and investigations and design assumptions, such as the general approach to disproportionate collapse, or for situations where a value judgement is required which cannot be formally proven by calculations. In such cases the judgement must be recorded in the project records and be able to be justified at audit

Scheme for Certification of Design (Building Structures)

Option	Notes on Suitability
	<ol style="list-style-type: none"> <li data-bbox="654 291 1428 481">5. When using Option 3 the certifier must make, reasonable enquiries to satisfy themselves of the adequacy of both the design and the check, that checks have been carried out by competent persons in accordance with the recommendations of Technical Bulletin 2, and that the design complies with the Regulations. <li data-bbox="654 504 1428 593">6. The certifier should always be responsible for reviewing assumptions made by designer regarding compliance with Regulation 12 (Conversions). <li data-bbox="654 616 1428 817">7. When using Option 3 the certifier must make a suitable record of their review, and the enquiries made to satisfy themselves of compliance, to enable them to demonstrate the extent, depth and timing of their review if called to do so at audit. Copies of the design calculations examined as part of the certification process should also be retained as part of the project records.
<p>Option 4 Certifier relied on competence of an identified third party.</p>	<ol style="list-style-type: none"> <li data-bbox="654 842 1428 1030">1. Option 4 is intended to be used where the design of the element in consideration is outwith the competence and experience of the certifier requiring them to rely on the advice of an “external” specialist or expert, or for components covered by independent test certification. (for elements within the certifier’s competence Option 3 should be used). <li data-bbox="654 1052 1428 1265">2. In such circumstances the certifier retains responsibility for the integrity of the checking process and during their review must make sufficient enquiry regarding the competence of the designer and checker, the level of check undertaken and factors out with the remit of the checker. They must also carefully consider the effects of interaction between various elements of the building at their interfaces in a “holistic” manner. <li data-bbox="654 1288 1428 1388">3. The certifier may not rely solely on a statement or certificate issued by the third party without being personally satisfied as to the adequacy of the check. <li data-bbox="654 1411 1428 1635">4. Where Option 4 is utilised certifiers must make a suitable record of their review, and the enquiries made to satisfy themselves of compliance, to enable them to demonstrate the extent, depth and timing of their review if called to do so at audit. Copies of the design calculations examined as part of the certification process should also be retained as part of the project records.
<p>Option 5 Certifier is the Designer and has also carried out a self check of the design</p>	<p>This is only appropriate for minor works. It is intended to be used for the circumstances associated with Risk Classification RC1 described in Technical Bulletin 2</p>

Scheme for Certification of Design (Building Structures)

Appendix A:

CHECKLIST OF STRUCTURAL ELEMENTS

It is the responsibility of the Certifier to identify all of the building elements that should be covered by the design certificate for each specific project. The following list is intended to assist with that process however it should not be regarded as exhaustive.

Design Feature	Sub-Options	Information To Be Supplied To Certifier		
		Calculations	Drawings	Other Information
Details of Structural Design Team	Design team organisation			Names of companies providing structural design and scope of their appointment
	Designers and checkers			Details of individuals responsible for design / checking including qualifications and experience
General Design Overview	Condition assessment of existing building		As built	Report on condition
	Loading assessment	yes		
	Overall Stability	yes		Statement of approach
	Disproportionate collapse	Yes		Statement of approach
	Site investigation scope and application to ground conditions		BH/TP locations	Ground investigation reports (factual & interpretative)
	Bearing capacity	yes		
	Mineral stability / grouting		yes	Specification/completion report
Sub-structures	Basement Raft Spread foundations	Yes	Yes	Specification
	Underpinning	Yes	Yes	Specification & method statement
	Piles minipiles Cantilever retaining wall Piled retaining wall Mass gravity wall	Yes	Yes	Specification
	Anchored wall	Yes	Yes	Specification and details of anchoring system
Ground Improvement	Dynamic Compaction Vibro compaction		Yes	Specification/ test reports
Structural Fire Protection	Elements of Structure		Yes	Period of fire resistance and method/specification for achieving required standard
	Portal Frames	Yes	Yes	Boundary condition requirement

Scheme for Certification of Design (Building Structures)

Design Feature	Sub-Options	Information To Be Supplied To Certifier		
		Calculations	Drawings	Other Information
Principal Superstructure	Structural Frame Structural Movement Joints Suspended floor(s) Loadbearing Walls Slab on Solid Shearwalls Racking panels Stair enclosure(s) Staircase Roof structure Link bridges Galleries and catwalks Ties, fixings & connections Slappings	Yes	Yes	Specification
Building Envelope	Elevation Cladding Curtain wall Masonry / brick / block Rainscreen cladding Overcladding Glazing Roof cladding Windows	Yes	Yes	Specification Calculations may be replaced by appropriate test certification
	Cladding Movement joints		Yes	Specification for construction
	Wall ties			Certification reference
	Fixings & Supports	Yes	Yes	Calculation may be replaced by appropriate test certification
Secondary Structure	Protective barriers	Yes	Yes	Specification and fixings details
	Internal Partitions Suspended Ceilings	Yes	Yes	Calculations may be replaced by appropriate test certification for proprietary systems
Other Structure	Canopies Balconies Catwalks and gangways Tank supports Stages and raised platforms Tiered seating Bridges, Boundary Walls & Fences Masts, Flagpoles, Advertising Hoardings	Yes	Yes	Specification - Calculations may be replaced by appropriate test certification for proprietary systems

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