

SER SCHEME FOR THE CERTIFICATION OF DESIGN (BUILDING STRUCTURES)

Review of procedural changes introduced in
October 2016

Glasgow/Edinburgh June 2017

What will we cover?

Changes to certification procedures

Robert Jopling : Chairman SRB

Changes to audit procedures

Mark Lawler : Member SRB

Changes to admin procedures/common problems

Hannah Parker : SER Registration Schemes Executive

Robert Jopling - About me

- Chairman of the Scottish Registration Board since 2012
- Chairman of the Jersey Registration Board since 2016
 - Approved Certifier of Design from 2005 -2017
 - Chartered Engineer with 40+ years experience
- Regional Director in Glasgow for 14 years for consultant
Hannah-Reed / Peter Brett Associates
- 17 years with Hannah-Reed in their Cambridge office

What will I cover?

Changes to certification procedures

Details of the changes

Reasons for the changes

Implications of the changes

The process

SER Scheme approved by Scottish Ministers in 2004

- Revised audit procedures issued in 2010
- A review of the scheme was undertaken in 2014
- Proposals approved in principle by SER Board
- Proposals developed in consultation with BSD and LABSS
 - Approval given to develop a new IT system
 - Scheme documentation updated
- October 2016 – new website and IT system goes live!

The Review

- Modern user interface
 - Give better feedback from audits
 - Auditors to have more discretion
- Introduction of certification performance criteria
 - Grading of audits to be discontinued
 - Greater flexibility in determination of outcome
- Selection of certifiers for audit to be to be risk based
 - No of certificates being issued
 - Type of project - need to record risk group

Other changes

Changes arising from consultations with BSD and LABSS

- Only one certificate required for new build/extension/alteration/conversion
- Changes to Schedule 1 procedures
- Form Q to be a controlled document issued through SER system
 - Changes to certificates for staged applications

Scheme Guide

Scheme Guide updated

- To reflect current practice
- To remove duplication of information contained in other scheme documentation

Certification Procedures

One certificate to cover new build, alterations and extensions and conversions

- Removes unnecessary bureaucracy
- Only one certificate required where there is new build, alterations/extension and conversion

SER are aware that the layout and appearance of the certificate are unsatisfactory and these are currently being reviewed

Certification Procedures

Certificate includes a
List of information used for the purposes of
certification

- To increase transparency and improve document control
- Previously there was no mechanism to link a certificate to a particular design proposal
- This list should be submitted to the Verifier along with the certificate

Certification Procedures

Certificate includes a
List of information used for the purposes of
certification

List would normally include:

- The structural drawings and specifications
- Any other information, such as architect's floor and roof plans, elevations and sections

Essentially any information that defines the design proposal for the project described in the application.

Certification Procedures

Certificate includes a
List of items to be certified in a later stage

- To increase transparency
 - To encourage Certifiers to plan ahead
- This list should be submitted to the Verifier along with the certificate

Certification Procedures

Building risk group recorded

- To allow audits to be targeted according to risk

Where there are multiple buildings which would fall into differing Risk Groups the Certifier should select the most appropriate Risk Group.

If the most onerous Risk Group is NOT selected then the Certifier must ensure that the checking regime and the Schedule 1 items for any particular building are those appropriate to the Risk Group for that particular building.

Certification Procedures

Introduction of Risk Group Matrix

Guidance Note 12

- To clarify Scheme requirements regarding checking and the use of Schedule 1
- This defines five Risk Groups and gives the:
 - requirements for checking of the design,
 - options that may be used for certification
 - elements which may be included on Schedule 1
 - risk classes used when assessing the requirements for disproportionate collapse.

Certification Procedures

Risk Group 1 sub-divided

RG1A – Traditional two-storey houses and extensions

RG1B – Houses and extensions to houses of larger size and those of non-traditional construction

- To ensure that these buildings receive appropriate levels of checking
- Only RG1A buildings can be designed, checked and certified by the one person.

Certification Procedures

Certificates for staged warrants follow the same philosophy as for amendments to warrant

- To better reflect the requirements of the legislation

The Building (Procedure) (Scotland) Regulations 2004

- 12. In relation to a building warrant granted in accordance with section 9(4) of the Act (staged warrants) the building warrant must state–*
- (a) the stages in construction or demolition in respect of which the building warrant is granted; and*
 - (b) that work on other stages cannot be proceeded with until an amendment is made to the building warrant authorising that work to proceed.*

Certification Procedures

Certificates for staged warrants follow the same philosophy as for amendments to warrant

- The point to note here is that the certificate for any particular stage amends the certificate for the previous stage and replaces it
- It covers the work in the particular stage and all preceding stages; whereas in the old system the certificate only covered the work in the particular stage
 - The most recent certificate is therefore the relevant certificate

Certification Procedures

Introduction of non-SER stages for certificate generation

- So that warrant stages on SER certificates can be better managed.
- Previously, aligning warrant and certificate stages required the certifier to request manual intervention by SER Admin. This was not always done and the stage numbers would get out of sync.

Certification Procedures

Schedule 1

Restricted list of permitted elements
determined by the Building Risk Group

Risk groups RG1A and RG1B

- | | |
|------------------------------------|----------------------------|
| 1. Piling | 5. Precast concrete stairs |
| 2. Vibro stone or concrete columns | 6. Timber roof trusses |
| 3. Precast foundation systems | 7. Steelwork connections |
| 4. Precast concrete floor units | 8. Protective barriers |
| | 9. Glazing |

Certification Procedures

Schedule 1

Restricted list of permitted elements

Risk groups RG2A and RG2B

1. Piling
2. Vibro stone or concrete columns
3. Precast foundation systems
4. Precast concrete floor units
5. Precast concrete stairs
6. Timber roof trusses
7. Steelwork connections

Certification Procedures

Schedule 1

Restricted list of permitted elements

Risk group RG3

None

Certification Procedures

Schedule 1

Restricted list of permitted elements

- To better reflect the pre-emptive principles of the building standards system which is designed to see that the proposed work meets the required standards before a warrant is granted.

Certification Procedures

Schedule 1

Restricted list of permitted elements

- A risk-based approach has been used to determine the prescribed elements
 - Removal of 'Other' category
- This addresses the problem where a significant proportion of the elements in a building may not be fully designed when a warrant is granted
 - Implication is that more warrants will be 'staged'

Certification Procedures

Guidance issued to certifiers states that Schedule 1 should not normally be used on staged submissions

- To better reflect the pre-emptive principles of the building standards system
- Schedule 1 was original introduced to deal with situations where it would be inappropriate to stage the warrant submission

Exceptions:

- Piling or vibro stone or concrete columns form part of stage 1
- Steelwork connections form part of the stage which includes the associated steelwork

Certification Procedures

Form Q

Generated from within SER system

Lists Schedule 1 items and sign-off date

- Better document control
 - Greater transparency
- Enables audit to cover Form Q procedures
- Verifiers should not accept old style, hand written, Form Qs where a new style certificate has been submitted to support the building warrant application.



Structural Engineers Registration Limited
47-58 Bastwick Street
London
EC1V 3PS
United Kingdom

Notice of Finalisation of Design Details

Building (Procedure) (Scotland) Regulations 2004
Notification of finalisation of design of elements specified in schedules to certificates issued in accordance with regulations 32 and 34

Part A: To be completed by the Certifier

Certifier Name	
Registration Number	
Declaration	
I hereby give notice that the detailed design of the elements specified in the schedule to the certificate of design number 243630 relating to building warrant reference number 16/01560/DOM1 has been finalised and is in accordance with the relevant performance specification.	
Signature	
Date	

Part B: To be completed by the Certification Coordinator

Body Name	
Registration Number	
Declaration	
I confirm that the person signing Part A is an Approved Certifier of Design and is a principal in or is employed by this Body.	
Print Name	
Signature	
Date	

Schedule 1 items

Item	Reference Number	Sign Off Date
Timber roof trusses	1	30/11/2016

EXAMPLE
FORM Q

Certification Procedures

Form Q

Only one Form Q is required for staged submissions

- To align with procedures for certificates for staged warrants

Certification Procedures

Form Q

Ability to issue an Interim Form Q

- To encourage certifiers to sign-off the design of elements before the work commences on site
- To reassure Verifiers that the design has been finalised and reviewed before work commences on site
- Requirement for Interim Form Q could be incorporated into Construction Compliance Notification Plan



Structural Engineers Registration Limited
47-58 Bastwick Street
London
EC1V 3PS
United Kingdom

Notice of Finalisation of Design Details

Building (Procedure) (Scotland) Regulations 2004
Notification of finalisation of design of elements specified in schedules to certificates issued in accordance with regulations 32 and 34

Part A: To be completed by the Certifier

Certifier Name	
Registration Number	
Declaration	
I hereby give notice that the detailed design of the elements specified in the schedule to the certificate of design number 243614 relating to building warrant reference number T.B.C. has been finalised and is in accordance with the relevant performance specification.	
Signature	
Date	

Part B: To be completed by the Certification Coordinator

Body Name	
Registration Number	
Declaration	
I confirm that the person signing Part A is an Approved Certifier of Design and is a principal in or is employed by this Body.	
Print Name	
Signature	
Date	

Schedule 1 items

Item	Reference Number	Sign Off Date
Pedestrian barriers/handrails	6	30/11/2016
Other	9	

EXAMPLE
INTERIM
FORM Q

Certification Procedures

Form Qs and multi-plot developments

- The SER system cannot generate a Form Q or an interim Form Q for an individual building on a multi-plot development
 - When the relevant person intends to submit separate completion certificates for each building, an **‘interim multi-plot’ Form Q** should be used for each building. This will cover the Schedule 1 elements that relate to the building covered by the individual completion certificate



Notice of Finalisation of Design Details Interim form for Multi-Plot Developments

Building (Procedure) (Scotland) Regulations 2004

Notification of finalisation of design elements specified in schedules to certificates issued in accordance with regulations 32 and 34

Part A: To be completed by the Certifier

[illegible]

Part B: To be completed by the Certification Coordinator

Body Name	
Registration Number	
Declaration	
I confirm that the person signing Part A is an Approved Certifier of Design and is a principal in or is employed by this Body.	
Print Name	
Signature	
Date	

Notes:

1. This form should be used when a building warrant covers multiple plots or buildings and there is phased completion or occupation/use of individual plots or buildings. This form should not be used for the last plot or building, in which case the standard Notice of Finalisation of Design Details form should be used to cover all Schedule 1 elements specified in the schedule to the certificate of design.

Page 1 of 2

Page 2 of 2

EXAMPLE INTERIM FORM Q FOR MULTI-PLOT DEVELOPMENTS



Forthcoming Guidance

Certification Options

- It is apparent that there are still misunderstandings about the use of certification options 3 & 4
- Guidance Note 3 is being updated to clarify the use of these options

Forthcoming Guidance

Certification Option 3

- Generally, this is to be used where the Certifier is neither the designer nor the checker
 - The Certifier will act as a reviewer of the design
- Commonly used where the certifier is certifying work which has been designed and checked by others in the same firm
- It will also be used where work designed by a third party is being certified

Forthcoming Guidance

Certification Option 3

- There must be evidence to show that the design has been checked by a suitably experienced person
- Certifiers must satisfy themselves of the adequacy of the design by undertaking a review
- It is not sufficient just to rely on CVs and other documents that demonstrate the competence of the designers and checkers as evidence of the adequacy of the design

Forthcoming Guidance

Certification Option 4

- Is only to be used where the design of the element under consideration is outwith the competence and experience of the Certifier and only in circumstances where the extent to which the option is used on the project is limited
- Certifiers should always consider whether or not they have sufficient competence to certify the project
- For the few elements on projects where this option is used, the Certifier may rely on advice as to the adequacy of the design given by a suitably qualified and experienced person, who has reviewed the design on behalf of the Approved Body

Forthcoming Guidance

Certification Option 4

- Certifiers retain responsibility for the integrity of the checking process and 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
- Relying on the advice of an identified third party does not absolve the Approved Body and the Approved Certifier of their respective obligations under the Scheme

Certification Procedure

Thank you

Mark Lawler - About me

- Chartered Engineer with over 35 years experience
- Partner with Harley Haddow for 15 years, now Consultant
 - Approved Certifier of Design Since 2005
- Two appointments to the Scottish Registration Board – 2007 to 2012, 2016 to date

What will I cover?

Changes to the audit procedures

Certification Performance Criteria = Audit Criteria

Changes to Audit Categories

Audit Reports and Responses

CPD – now auditable

Factors affecting Audit Outcome

Audit Outcomes

Approved Body Criteria

Audit Criteria

- Audit criteria are now described as Certification Performance Criteria
- Certification performance criteria – can be found in the drop down '**Resources**' menu on the new website
- Performance Criteria – indicated in Appendix B of October 2016 Audit Procedures
- Criteria indicated in the audit rules mirror the Certification Performance Criteria
 - Both describe the minimum standard to be achieved
 - Examples of non-conformances are listed in each – not exhaustive
 - Very useful tool for certification – basis for a robust certification plan

Changes to Audit Categories

- ‘Superstructure’ now split into 3 categories to reflect the importance of this area:
 - B4.6 Principal Load Bearing Elements – key support structure
 - B4.7 Stability Elements – bracing/racking elements
 - B4.8 Other Elements – secondary structure such as trimmers, lintels etc.
- Other changes include:
 - P1A and P1B are combined – now B1.1 Certification Procedures and Records
 - P7A, P7B and P7C are consolidated – now B7.1 Specification
 - B5.3 clarifies that it is building envelope movement joints we’re interested in
 - B6.1 makes it clear that ceilings should in certain circumstances also be considered.
- Elsewhere, categories remain the same but criteria have been updated – worthwhile review (and great CPD for 2017!)

Audit Reports and Responses

- Audit reports now record all categories reviewed including those where the standard has been achieved –
 - Provides an improved record of overall scope of the audit
 - Gives a more positive perspective of audit performance generally
- Auditee responses would ideally record proposed corrective actions –
 - Auditors can now ask for improved responses
 - Reporting the audit is now more interactive
- Note that all findings require a response, including comments, though comments do not accrue a score

CPD

- CPD is now auditable
- 3 years CPD returns prior to the audit to be reviewed
 - Updated Guidance Note 7 –
 - Standard would typically be 60 hours Certifier relevant CPD over a 3 year period
 - Guidance Note 7 now allows greater flexibility – e.g. standard may be relaxed if scope of work is limited
 - 3 year period also allows flexibility – difficult years can be made up to standard in the following years

Factors Affecting the Outcome

- **Average** project audit score and **maximum** project audit score considered –
 - Better indication of overall certification practice
 - Will not unduly penalise one bad project
 - Accounts for variation in numbers of projects audited
 - Number of categories checked/scope of projects audited
- Proportion of findings against total number of categories checked – high number of categories vs low no of findings would be favourable
 - Proportion of Major Non-Conformances to Improvement Issues –
- Indicator of understanding of the Scheme in key areas – are the findings procedural or are there significant gaps in the process?
 - Auditee responses –
- Are the responses comprehensive, does the Certifier demonstrate a good understanding of the Scheme?
 - Comparison with previous audits –
 - Have corrective actions from previous audits been implemented?
 - CPD Review –
 - Has the standard been met?

Audit Outcomes

- Outcomes no longer expressed as Grades –
 - Less objective, more subjective, removes stigma associated with a lower grade
- Now expressed as likely period to next audit –
 - Anything from 1 to 5 years depending on performance, or other sanction as before, such as mentoring, suspension or termination of membership
 - Increases flexibility in determining the outcome of the audit

Approved Body Updated Criteria

- Overall shift of emphasis to better reflect the Approved Body's responsibilities
 - Appendix A of October 2016 Audit Procedures
- A1.1 Certification Coordinators should monitor operation of the Scheme within the Practice –
 - Not entirely an administrative role
- Certification Coordinators must have a clear understanding of the Scheme and must be able to raise any issues or concerns with Practice Management
- A2.2 Approved Bodies now solely responsible for maintaining project records
 -
 - Aims to improve record keeping generally
 - Should obviate issues where Certifiers are audited at previous Employer
 - Note that Certifiers may wish to retain their own Certification records

Audit Procedure

Thank you

Admin Procedures

Hannah Parker

June 2017

What will be covered

- Staged certificates
- Legacy certificates
 - CPD notepad
- Duplicate certificates
- General certification
- Certificate changes

Staged Certificates

- A staged certificate should cover every stage which has been certified to date
- Do not include in the Stage Information section a description of future stages. Include these in the 'Items to be certified in a later stage'
- The 'Project Value' entered onto the initial certificate should always be the estimated value of the entire project, not the stage being certified
- When entering a new stage to a project, you must press 'Save this stage' before you press 'Save and continue' or your new stage will not be added
- Non-SER stages are for stages where a new certificate is not required (e.g. drainage) and are to be used to allow the staging of the certificates to match the staging of the warrant

Sample Certificate Extracts

Structural Engineers Registration Limited Certificate of Design (Building Structures)

Project Information

Project Description	
Sample Staged Certificate	
Project Risk Group	RG1A
Stage Number(s)	1 - 2

Part A: To be completed by the Approved Certifier of Design

I certify that, having exercised reasonable skill, care and diligence in consideration of the design proposal for the project described in the application:

- For a new building
 - The structural design complies with the Building (Scotland) Regulations 2004 (as amended) with respect to Standards 1.1 and 1.2 of Schedule 5 to Regulation 9 (see note 2)
- For an alteration and/or extension
 - The structural design complies with the Building (Scotland) Regulations 2004 (as amended) with respect to Standards 1.1 and 1.2 of Schedule 5 to Regulation 9 (see note 2)

Stage Information

Stage Number	1
Stage Type	Non-SER
Stage Description	Demolition and drainage

Stage Number	2
Stage Type	SER
Stage Description	Foundations and substructure

The Certifier is expecting to add additional stages in the future

Items to be Certified in a Later Stage

Items to be covered by future design certificates

Stage 3 - Superstructure and steel framing
Stage 4 - Cladding and fixings
Stage 5 - Retaining walls and external works

Signature

Name	
Registration Number	
Signature	
Date	

Legacy Certificates

- When generating an amendment to a legacy project, the certificate you use to do this will always be the latest certificate issued. Even if you are amending Stage 1, you will need to use the Stage 2 (or later) to do so. You will also need to re-enter all stages certified to date into the amended certificate. This certificate will then be the only valid certificate for the project.
- Any Schedule 1 items entered onto the original certificate remain valid on the new certificate, even if you cannot select these when generating the certificate. You cannot add new items that are not permitted under the Risk Group of the project.

CPD Notepad

- The CPD Notepad was designed for use throughout the year, just as it was on the old system
- Each time a CPD activity is completed, it can be input into the Notepad
- When completing your CPD return, you may then import your CPD Notepad and not worry about remembering each item from throughout the year. You may also add any additional items manually
- If you do not maintain your CPD Notepad, you may enter all CPD items manually
- Clicking to upload your CPD Notepad when you haven't completed it will not affect your ability to manually enter CPD items
- Once you have selected to upload your Notepad and clicked 'Save and Continue' you cannot upload your Notepad again. Ensure your Notepad is entirely up to date before selecting to upload

Duplicate Certificates

- Duplicate certificates are created when using the browser 'back' button instead of using the 'Previous Step' button within the SER website
- If you selected the incorrect building type or certificate number, delete the generated certificate and start over
- To delete a duplicate certificate, or any certificate that has not been paid for and is no longer required follow the below steps:
 1. Expand the outstanding task for the appropriate certificate
 2. Click on the certificate number at the top of the screen. This opens the Certificate Information page
 3. Expand the Certificate Actions bar
 4. Select 'Delete certificate not yet paid for' and click confirm when prompted

General Certification

- The Project Value entered on the certificate should always be the entire project value, including in staged projects
- All Schedule 1 items should be listed on Schedule 2
- The List of Information Used normally includes all of the structural drawings and specifications and any other information, such as architect's floor and roof plans, elevations and sections, which will be construed as defining the design proposal for the project described in the application
- When uploading a document for the List of Information Used this document should also be attached to the certificate and submitted to the Local Authority
- The document should ideally contain at least the project reference both within and in the file name
- All drawings should contain revision numbers where applicable

Certificate Changes

- If the certificate has not been issued, we are able to make most changes required, excluding Project Value, deleting stages, changing from Staged to Non-staged
- If the certificate has been issued, we are only able to change typos and errors in the certificate generation process e.g. incorrect project location or reference, incorrect/updated warrant reference number

Final Points

- If you are unsure about any process relating to the generation of certificates, renewals or CPD contact SER Admin before you confirm, pay for or complete any processes. It is much easier to correct all issues before the certificate/renewal are confirmed/paid for or the CPD submitted.

Admin Procedure

Thank you