# **Building Standards**

Guidance Leaflet (v8)

Midlothian Council Fairfield House 8 Lothian Road Dalkeith EH22 3ZN Tel 0131 270 7500 Fax 0131 271 3537



www.midlothian.gov.uk/buildingstandards

## Structural information to accompany a building warrant application

This is for **general guidance only** and does not constitute a definitive set of requirements.

This information sheet is aimed at the professional and therefore unless you are familiar with the requirements of the Building Regulations, you are strongly advised to engage the services of a suitably qualified agent to assist you through the building warrant process.

#### a) Statutory requirements

An application for building warrant or to amend an existing building warrant must be accompanied by various plans and other information listed in schedule 2 of the Building (Procedure)(Scotland) Regulation. These regulations make clear that the Verifier has discretion over the extent to which the information must be provided. In general, the warrant plans should contain sufficient information to allow the Verifier to undertake meaningful site inspections.

### b) How this guidance should be used

This guidance is supplied in the form of checklists that may be used by applicants and their agents to check that the correct information has been assembled prior to the submission of the warrant application. It can also be used by Approved Certifiers to check that they have seen a full range of information that has been submitted. Two checklists have been supplied, one covering new-build houses\* and one covering all other domestic and non-domestic buildings.

The checklists cover the major structural elements for the most common forms of construction. They do not, for example, cover steel framed houses, or ancillary structures such as retaining walls that have a direct impact on the structure of the building, or free standing walls to which requirement of the regulations apply. The same general principles may however be applied.

#### **Notes:**

- 1) The checklists should not be interpreted as defining the scope or extent of the structure of a building.
- 2) It should be noted that each application is site specific and that further information and details may be required by the Verifier to allow for assessment.
- 3) Applicants may need to supply the Verifier with a copy of the ground investigation report and its recommendations in relation to matters other than structural, such as ground contamination or landfill gas and remedial measures proposed for treatment of same. The provision of a Coal Report may also be required.
- \* A 'house' is defined by Regulation 2 of the Building (Scotland) Regulations 2004 (which are reproduced in the list of defined terms which form Appendix A to the Technical Handbook) as a dwelling on one or more stories, either detached or forming part of a building from all other parts of which it is divided only vertically.

## Checklist 1a – Houses

<b>Building element</b>	Information to be shown on the warrant plans	Check
Ground conditions	A description of the soil/rock type onto which the foundation will be constructed and a recommendation of the required bearing capacity and foundation type.	
Mineral	Extent of consolidation area.	П
consolidation		
Piling	Pile and ground beam general arrangement, to include commencement level, cut off level, design load and typical pile cap details.	
Vibro-compaction ground improvement	Anticipated layout of stone columns, to include diameters and notional centres, required safe bearing capacity and details of site testing.	
Earth retaining structures	Typical details of retaining walls included within the scope of the warrant application - layout, dimensions, construction and typical reinforcement details.	
Spread foundations	Typical details including dimensions, change of level, material specification and typical reinforcement details where appropriate.	
Floors	Materials, dimensions, span and span direction of structural flooring materials including trimming details for openings including end bearing details.	
Walls	All walls that are necessary for the stability of the structure must be shown.	
	Leaf construction and dimensions, block/brick strengths, cavity width, mortar designation, wall tie type and spacing.	
	Span, dimension and material of beams and lintels, padstone details and bearing requirements.	
	Wind posts and fixings.	
Roofs	General plan of truss layout.	
	Typical truss shapes.	
	Loading to be sustained on rafters and ties, including location of water tanks.	
	Support details and typical tying down details.	
	Plan of roof showing stability bracing and location/centres of tying down details and lateral restraint.	
Fixings and supports	Details of spacing and fixing of restraint ties between external walls, floors and roof trusses.	
Beams and lintels	Material, location, dimensions, bearing and lateral restraint.	
Protective barriers/handrails	Location and typical construction details, connections and fixings.	

# Checklist 1b – Additional requirements for Timber framed houses

Building element	Information to be shown on the warrant plans	Check
Underbuilding	Details of underbuilding.	
Kit	Timber kit details.	
Walls	All timber framed walls that are necessary for the stability of the structure must be shown.	
Frame details and connections	Nailing schedule, panel tie down to foundations, sole plate restraint to underbuilding, plan of studs and cripple studs, lintels, platform connection to wall panels, wall tie type and spacing. All wall panels including racking panels.	
General	Movement joints.	

# Checklist 2a – All buildings other than houses - Foundations and substructure

<b>Building element</b>	Information to be shown on the warrant plans	Check
Ground conditions	A description of the soil/rock type onto which the foundation will be constructed and a recommendation of the required bearing capacity and foundation type.	
Mineral consolidation	Extent of consolidation area.	
Piling	Pile and pile cap general arrangement, to include commencement level, cut off level, design load and typical pile cap details.	
Vibro-compaction ground improvement	Anticipated layout of stone columns, diameters and notional centres, required safe bearing capacity and details of site testing.	
Earth retaining structures	Typical details of retaining walls included within the scope of the warrant application - layout, dimensions construction and typical reinforcement details.	
Spread foundations	Typical details including dimensions, change of level, material specification and typical reinforcement details where appropriate.	
Basements	Layout, dimensions and construction details.	

# Checklist 2b – All buildings other than houses - Primary superstructure

Building element	Information to be shown on the warrant plans	Check
Steel framed buildings	Typical frames layout and dimensions for main beams, secondary beams, and columns, together with applied loading - typical main details. Bracing details. Details and layout of composite beam shear studs and corrosion protection measures.	
Concrete framed buildings	Typical frames, main beams, secondary beams, and columns, together with loading requirements - typical beam, column reinforcement details together with typical joint details.	
Masonry buildings	All masonry walls that are necessary for the stability of the structure must be shown.	
	Leaf construction and dimensions, cavity width, brick/block strength, mortar designation, wall tie type and spacing.	
	Span, dimension and material of beams and lintels, padstone details and bearing requirements.	
	Wind posts and fixings.	
Timber frame buildings	All timber framed walls that are necessary for the stability of the structure must be shown - nailing schedule, panel tie down to foundations, sole plate restraint to underbuilding, plan of studs and cripple studs, panel sheathing, lintels, platform connection to panels, wall tie type and spacing. All wall panels including racking panels, movement joints and timber kit details.	
Floors (general)	Materials, dimensions, span and span direction of structural flooring materials including trimming details for openings.	
Floors (concrete)	General dimensions, for example width, thickness etc. and typical reinforcement details where applicable. For composite metal decks - generic type and gauge, shear stud details and temporary propping requirement if applicable.	
	Two way spanning or single span plus direction of span.	
	Typical bearing details together with typical fixing and connection details etc., as appropriate.	
Timber roofs	General plan of truss layout, typical truss shapes and section sizes and dimensions. Loading to be sustained on rafters and ties. Plan of roof showing stability bracing and location/centres of tying down details.	

# Checklist 2c – All buildings other than houses - Secondary structure

<b>Building element</b>	Information to be shown on the warrant plans	Check
Roofs	Dimensions and spacing of purlins and fixings, cladding fixings,	П
	sheeting specification and design load.	
	Plan of roof showing stability bracing and location/centres of tying	
	down details and lateral restraint.	
Cladding systems	Dimensions and spacing of sheeting rails and fixings, cladding fixings,	
	sheeting specification and design load.	
Stairs	Layout and structural details.	
Fixings and supports	Restraint ties between external walls, floors and roof trusses.	
Non-loadbearing	Typical fixing details for major internal non-loadbearing walls, for	
walls	example where opening large warehouse doors may apply pressures.	ш
Glazing	Support arrangements and fixing details for large glazed panels (with	
	minimum dimension greater than 120mm or any glazing that is less	
	than 800mm above floor level).	
	Glass specification for loadbearing glazing elements.	
Protective barriers	Typical balustrade/handrails details, connection loadings.	
Beams and lintels	Material, location, dimensions, bearing and lateral restraint.	