

Design Guide for Single One-off Houses

within Cavan Rural Countryside





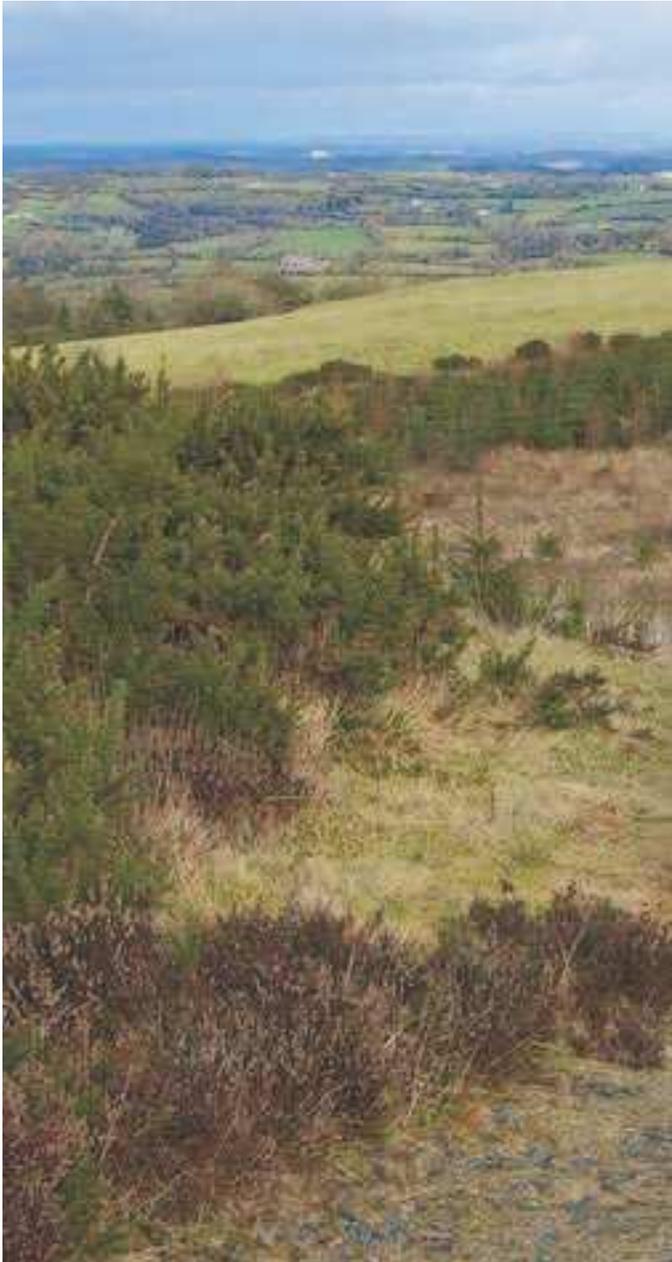
CONTENTS

Introduction

- 1.0 Site Selection
 - 1.1 Siting and Location
 - 1.2 Orientation
 - 1.3 Contours
- 2.0 House Design
 - 2.1 Shape and form
 - 2.2 Proportions
 - 2.3 Materials & Finishes
 - 2.4 Contemporary Design
- 3.0 Landscaping
 - 3.1 Landscape Design
 - 3.2 Entrance boundaries
- 4.0 Sustainability
 - 4.1 Renewable energy
- 5.0 Design Statement

Appendices

- I. Check list for Planning Applications
- II. List of native species
- III. Acknowledgements & accreditation



Introduction

These guidelines have been prepared as a project for the Leadership Development Programme with Cavan County Council. This document aims to assist in the siting and design of one-off houses located within the rural environment of Cavan. Much of the rural house design throughout the county over the last few decades are a result of “catalogue” type housing, where new dwellings are randomly located on a site with no reference to existing site contours, orientation, boundaries, site surroundings or the individual needs of the applicant.

The guide does not aim to prescribe a certain type of house design but aims to highlight the benefit, to the applicant, of putting the time and effort into choosing the right site. Thereafter choosing the right design for that site based on its unique characteristics and individual needs of the applicant. This will result in a more satisfactory living standard for the applicant as well as ensuring that new dwellings will blend into the landscape.

This document should be used as a guidance only as each application will be determined on an individual basis. The guidelines offer potential applicants advice on siting and design of rural dwellings and does not cover every aspect of planning. For example, other considerations for planning would include traffic safety, public health and rural housing policy etc. For more information on these issues please refer to the Cavan County Development Plan or contact the Planning Office.

Cavan Landscape

The Celtic origin of Cavan is “An Chabhán,” meaning “hollow” or “little hill”, a description of the countryside, especially towards the northwest, where the landscape is covered by drumlins - oval clay hills of glacial origin between 80 to 100 feet high. In between these rolling hills, the valleys are poorly drained, with extensive bogs, swamps and lakes. This undulating topography means that visibility is frequently limited, often no more than a few hundred yards, giving the countryside an intimate feel.

A Landscape Categorisation of County Cavan is contained within the County Development Plan 2008-2014. Five main Landscape Character Areas have been identified as follows:

1. *Cuilcagh – Anierin Uplands of West Cavan* - mountainous region of north - west Cavan stretching from Blacklion and Dowra to Belturbet
2. *The Lakelands* - Lough Oughter lake system stretching from Belturbet to Lough Gowna
3. *Lake Catchments of South Cavan* - Lough Sheelin and Lough Ramor and their catchment areas in south Cavan
4. *Drumlin Belt and Uplands of East Cavan* - central area of the county stretching north-east from Shercock to south-west and Kilcogy
5. *Highlands of East Cavan* - Kingscourt and Bailieborough area

(See map on following page)

1. Cuilcagh – Anierin Uplands of West Cavan

This area stretches from Blacklion in the far north west of the county to the area west of Belturbet. West Cavan is an extensive expanse of hill and mountain country. It includes the upland valley of the Shannon and a range of mountains including Slieve Rushen, Benbrack and Boleybrack though to the Cuilcagh-Anierin Mountains which form the core of this upland area. The landscape character comprises of open, unenclosed, treeless, upland hill country with occasional isolated farms and outbuildings sited in shallow valleys or under the lee or ridge lines. The landscape is extremely fragile and sensitive to incompatible and unsympathetic development. The vernacular architecture of this area reflects this rugged exposed environment consisting mostly of single storey stone built cottages and farmhouses and farm buildings. Shelter from prevailing winds would have been an important consideration in the siting of dwellings rather than views which is more common today. Shelter would have been provided by choosing low lying locations, using outbuildings to surround dwelling and using existing hedgerow and trees for shelter.

2. Lakelands

The "lakelands" are an extensive area of inland lakes within the Erne drainage system. This area lies west of Cavan and includes Belturbet, Butlersbridge, Killeshandra, Arva, Lough Gowna and Ballinagh. Much of this area lies within Natural Heritage Areas and the European Designations of Special Area of Conservation and Special Protection Areas. Dwellings in the lakelands area should be sympathetic to the scenic beauty and natural heritage value of these lakes.

3. Lake Catchments of South-East Cavan

Lough Sheelin and Lough Ramor are the largest lakes in this region. These major lakes have notable amenity value due in part to their size and location within a scenic landscape and their intrinsic recreational value. They also provide valuable habitats which are of great ecological importance and are protected nationally as proposed Natural Heritage Areas; Lough Sheelin is also identified as a Special Protection Area under European Legislation.

The lakes of County Cavan are very important for their scenic and ecological value and development in or around the lakes should be carefully and sensitively designed. Development on lakes skyline and in the vicinity of the lakes should be restricted and where permitted should be designed and located to minimise visual intrusion.

4. Drumlin Belt and Uplands of East Cavan

This area stretches from Redhills to Cootehill in north-east Cavan through the county taking in east of Cavan Town, Stradone and Crosskeys to Killydoon and Kilcogy in south-west Cavan. This area is typical of the Drumlin landscape with many inter-drumlin lakes distributed throughout the region. Dwellings in this area should avoid breaking the skyline and should integrate into the drumlin landscape through good siting, landscaping and design.

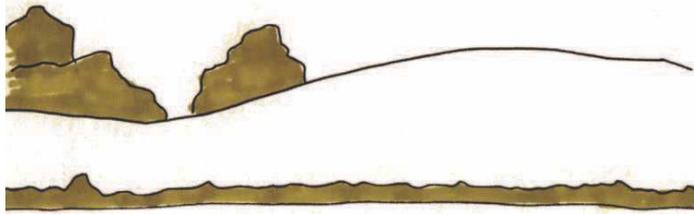
5. Highlands of East Cavan

This is the area around Bailieborough and Kingscourt which consists of drumlins and highlands. Dwellings in upland areas should be sited so as not to break the skyline.

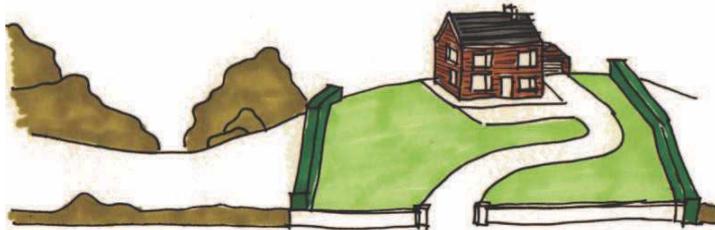
1.0 Site Selection

The character of County Cavan, its topography, vegetation cover, field and hedgerow patterns determine to a considerable extent the type of new development that can be accommodated within the landscape.

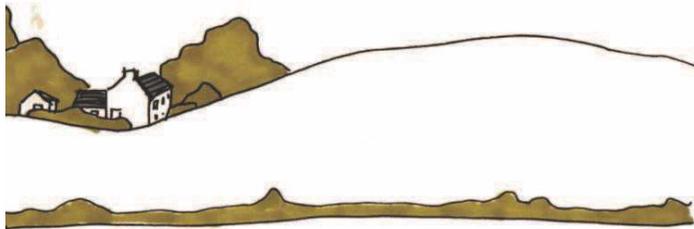
Integrating a new building unobtrusively into the countryside can be aided by utilising the existing sites natural features.



Proposed site



Poor Siting - building placed on most exposed area of site



Good siting - sheltered hollow, excellent use of existing vegetative cover

1.1 Siting and Location

In areas of enclosed fields with hedgerows or stone walls, or drumlin country with its intimate rolling landscapes, good use of a site's natural features can help to integrate a new building unobtrusively into the countryside.

Areas of enclosed fields or drumlin landscape can also absorb buildings without damaging the rural quality of the area better than the open landscapes.

Poor Siting

Construction of houses on elevated and exposed sites which will be obtrusive and which will reduce the visual character of the rural area will not be permitted.

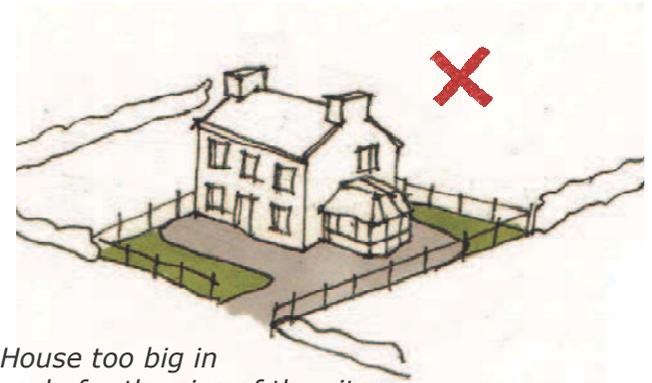
Photographs below are examples of traditional dwellings that are well sited.



Scale and Plot proportion

The size of the building should have respect and be sympathetic to its surroundings. Its mass should relate proportionately to the landscape and setting and site size.

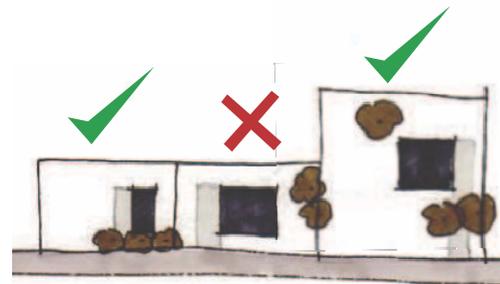
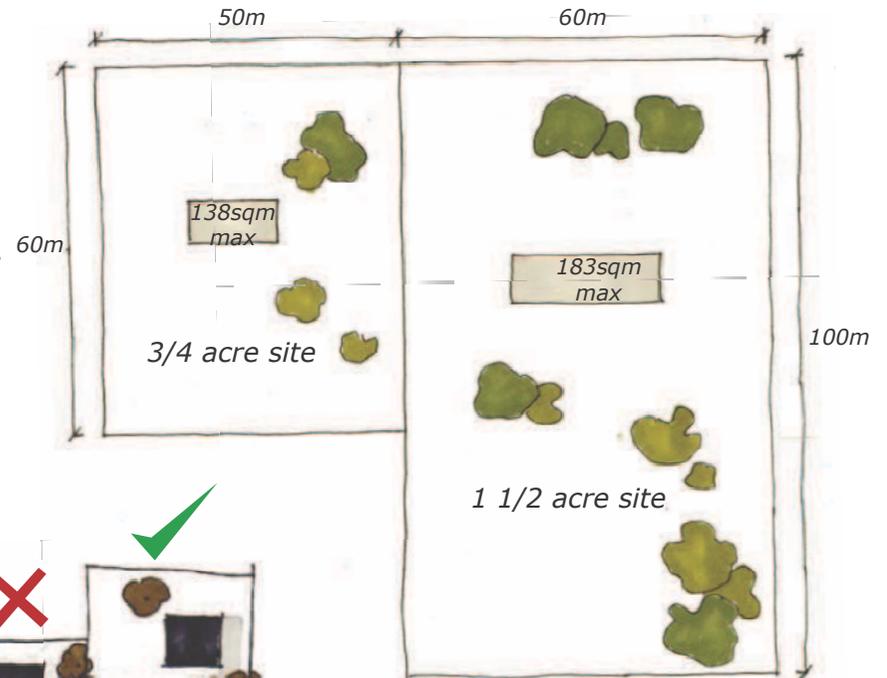
- Larger buildings are incompatible with smaller enclosed sites.
- Larger sites must carefully consider the landscape and siting.
- Larger houses should be located set back from the road within mature lands and be well integrated into the landscape – similar to traditional estate houses.
- Replacement dwellings should take into account the size and scale of an existing dwelling.



House too big in scale for the size of the site



Where a new site is situated among existing buildings choose a scale and form that is appropriate



The site should be of sufficient size so that the building can be set well back from the road and full use made of its natural features.

Plot ratios:

- 3/4 acre site - max. area for house 4.5% (138sqm)
- 1 1/2 acre site - max. area for house 3.0% (183sqm)



The front of the building line of the house need not necessarily be parallel to the public road. The building line may be influenced by existing development in the area.

Utilise natural hollows and dips in the landscape. Align driveway with existing hedgerows.

Avoid removal of existing hedgerows. Avoid dividing the site with driveway.

The building should not break the skyline. Avoid dividing the site with driveway.



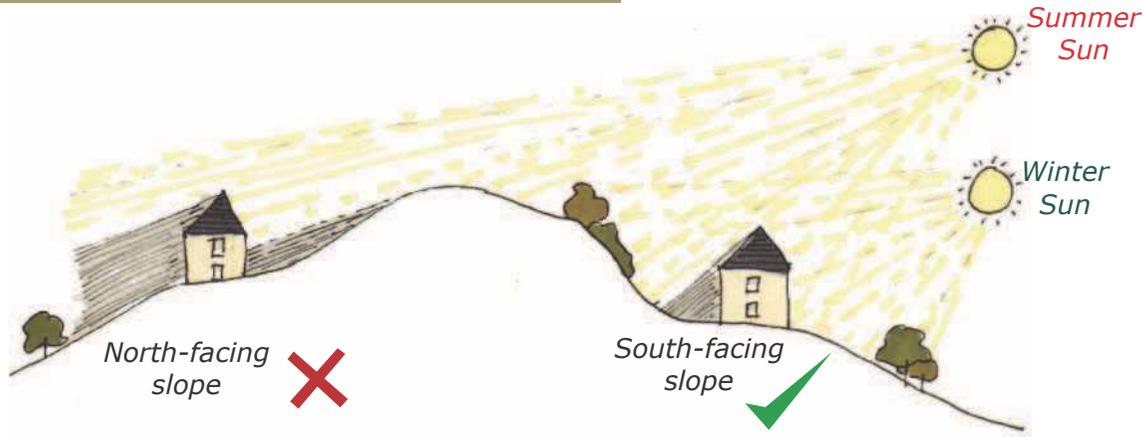
Cavan's natural topography should be carefully used to obtain natural shelter, avoid north facing slopes and elevated areas exposed to prevailing winds. The landscape can create shelter and a sense of space.

Seek a location where the house blends well into the landscape to utilize the landscape and hedgerows. The traditional siting of houses provides a good reference as they normally sought a sheltered location rather than a visually prominent one.

Use should be made of a backdrop of rising land, trees or hedgerows or a siting which interacts with existing buildings softening the visual impact.

1.0

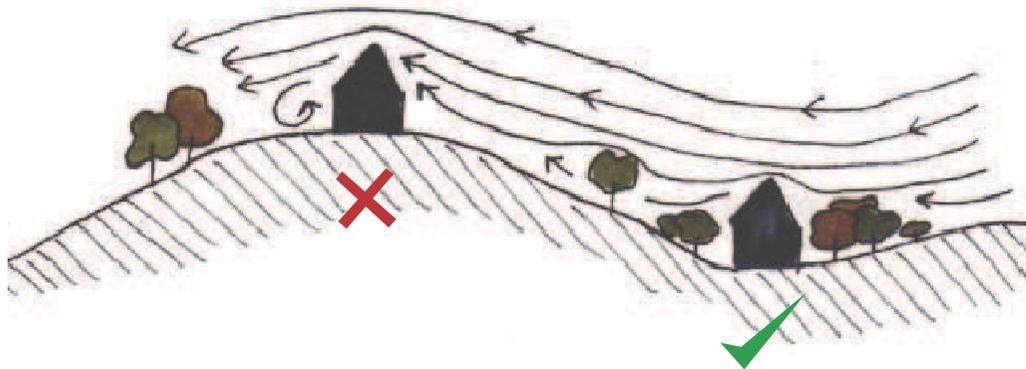
Site Selection



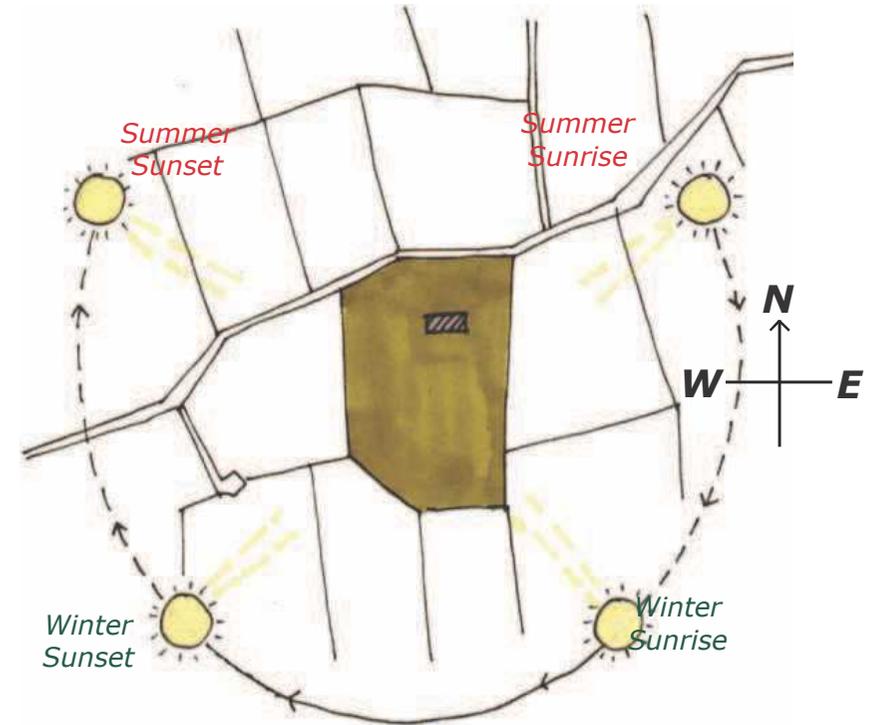
Shadowing on a North-facing slope versus a South-facing slope

1.2 Orientation

Orientation is very important. Exploit the sun – choose a good orientation, this will help produce comfortable and sustainable living conditions.



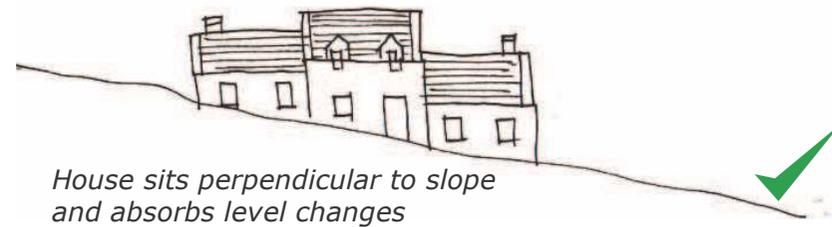
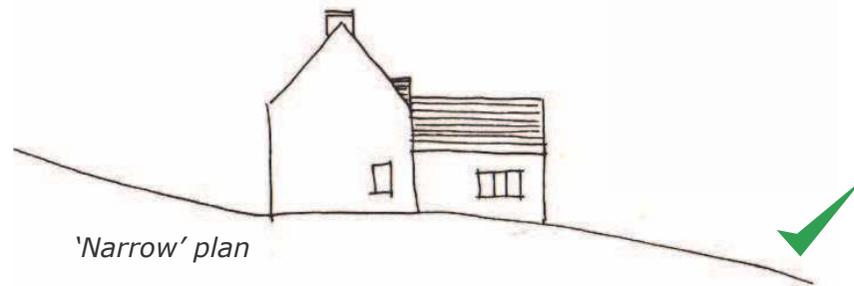
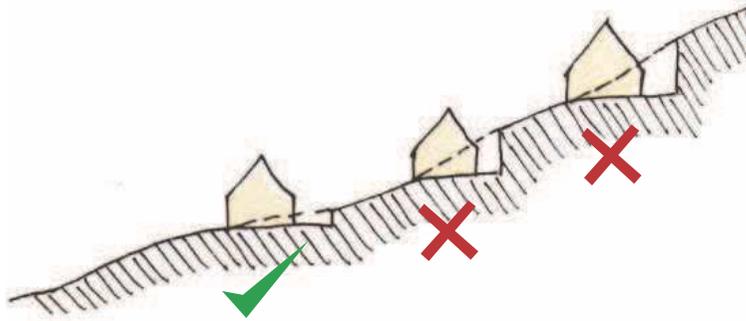
By choosing a sheltered location for the building heat loss can be reduced.



Sun path diagram placed over site map

1.3 Contours

The gentlest part of the slope should be utilised in order to minimize earth moving and to avoid making permanent scars in the landscape.



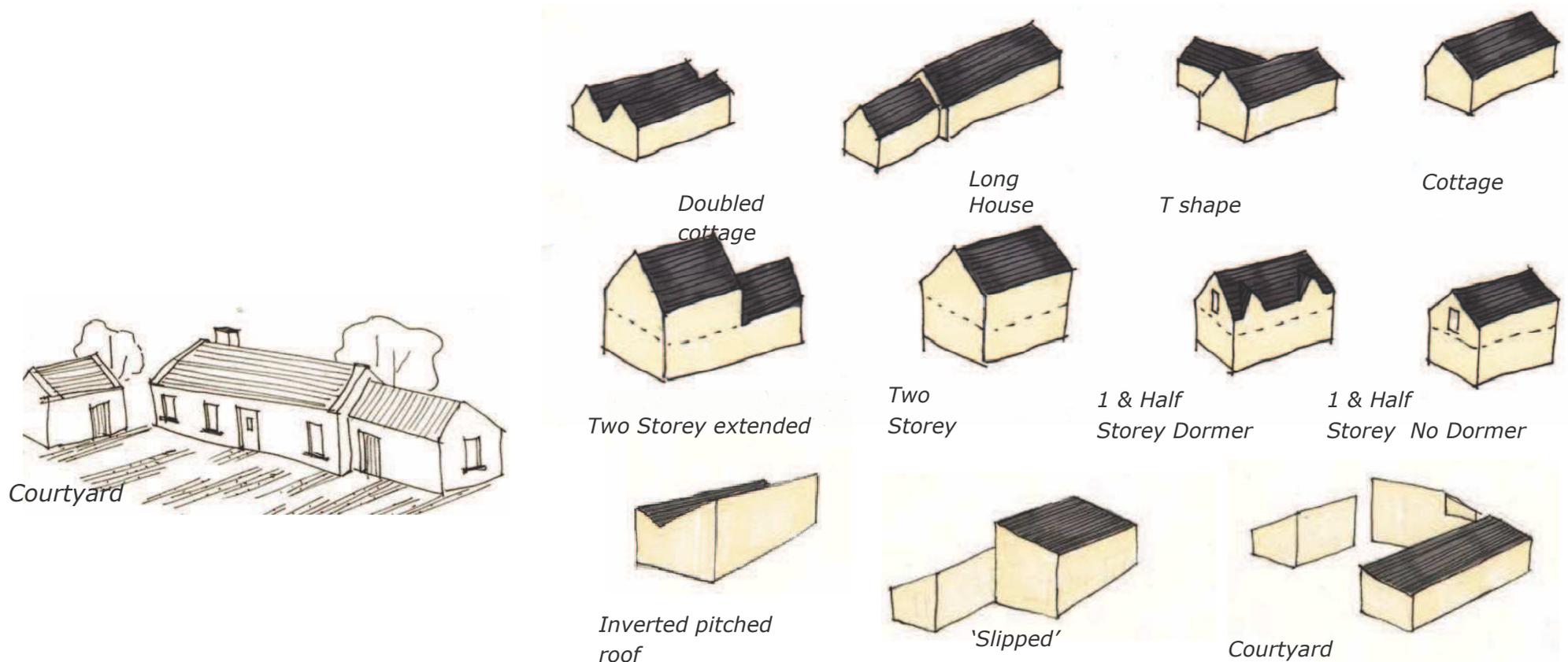
2.0 House Design

Good design is at the core of creating a good quality family home that suit the needs of the applicant. There is no requirement to apply any particular style, traditional or contemporary, but buildings should be kept simple in terms of elevational features and materials.

2.1 Shape and Form

The shape, form, proportions and materials of a new dwelling are key elements in the overall design, which determine the dwelling's visual impact on the surrounding area and landscape. New dwellings are encouraged to incorporate simple forms and proportions which integrate effectively into their rural landscape.

Whilst traditional shapes and forms such as those shown below are encouraged, this does not mean that new houses have to replicate older dwellings. In skilled hands it is quite possible for traditional shapes and forms to be translated into new houses that are contemporary and can accommodate modern family requirements.

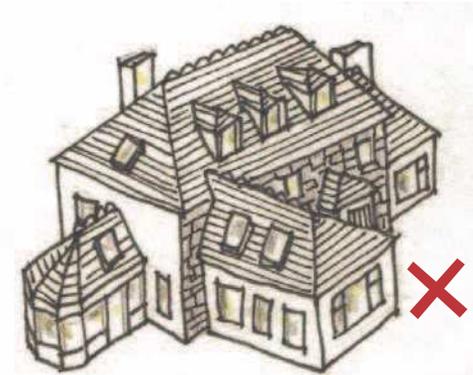


General points to consider in house design:

- Ensure massing is right and avoid one bulky structure.
- Reflect scale, form and proportioning of older traditional architecture of the immediate area.
- Break dwelling into smaller elements with simple forms.
- Gables should be predominantly solid with relatively small openings.
- Narrow plan houses maximise solar heat and light gain.

Things to avoid in house design:

- Bulky forms
- Large, wide, ill designed gables
- Wide and deep plan houses
- Large roof spans and foreign roof forms ie Dutch hipped.



Ill designed dwellings in terms of roof pitch, window design, scale, mass and bulk.





Photographs above are good examples of well proportioned dwellings

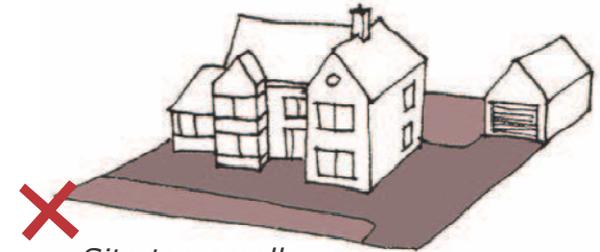
2.2 Proportion

The proportions of a dwelling are determined by its height, gable depth, doors, windows and chimneys.

In general, good design features are pleasing to the eye due to their traditional proportions and uncomplicated design. With all aspects of the design features an effort should be made to keep the design and proportions traditional and simple.



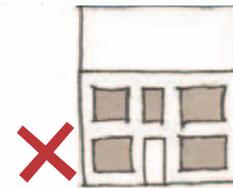
Chimney too large



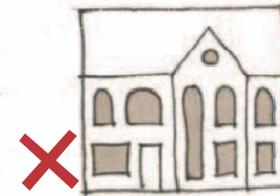
Site too small



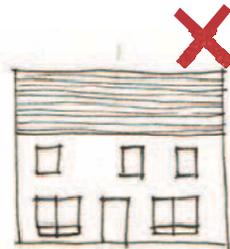
Too many windows



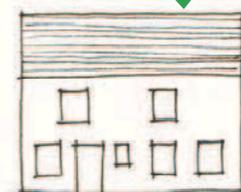
Too low wall to window ratio



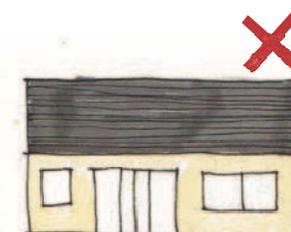
Too many variations on window form



Too close to symmetrical



Windows can be randomly placed



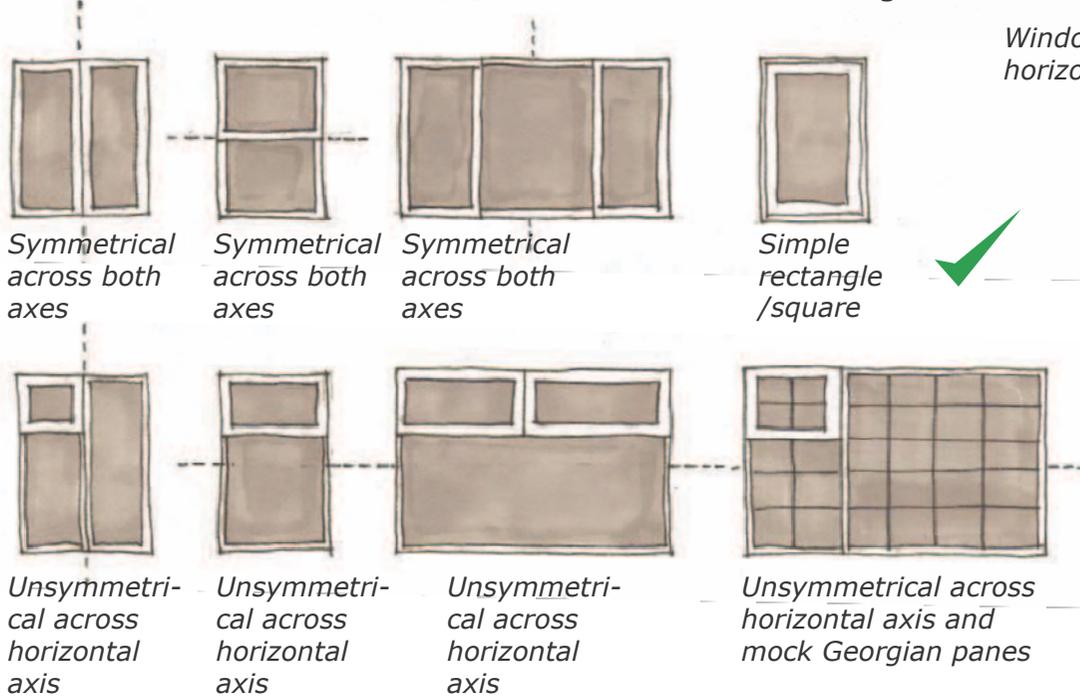
Too many large voids



Large void is possible when balanced by small openings

Windows

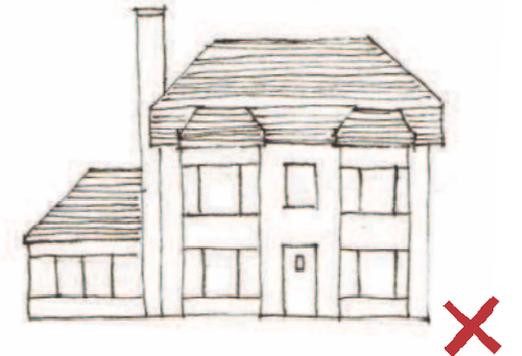
Windows with a vertical emphasis generally work better and windows which have a wide horizontal emphasis should be avoided as well as elaborate and excessive windows such as 'Georgian style.'



Windows have horizontal emphasis



Windows have vertical emphasis



2 storey bay windows are unacceptable in the vast majority of cases as they add undue emphases to the window feature.

Bay Windows

Bay windows should be kept simple in form; roof finish and pitch should match that of the dwelling. They should only be to the ground floor of the dwelling and not of two storey design.

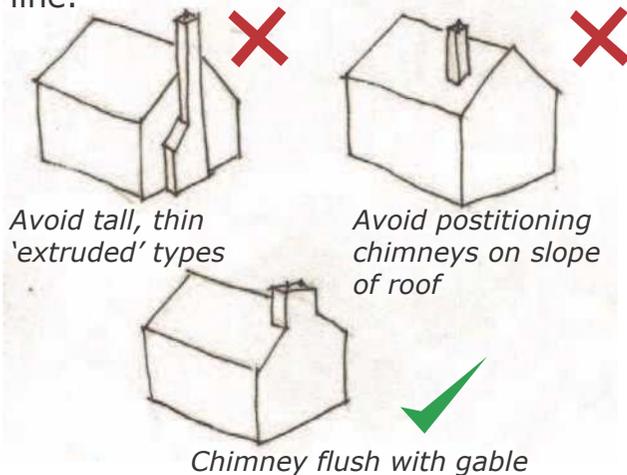
Single storey bay windows are acceptable - providing that they are designed in proportion with the overall design of the dwelling, having regard to the roof design and details of both the dwelling and the window.



A well incorporated bay window

Chimneys

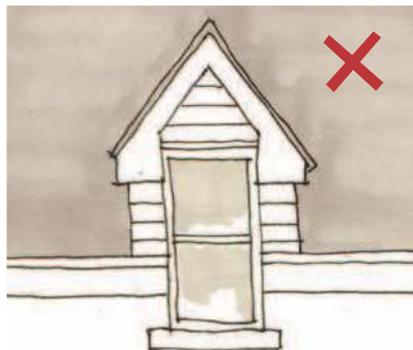
Chimneys should be located through or as close as possible to the ridge line.



Doors

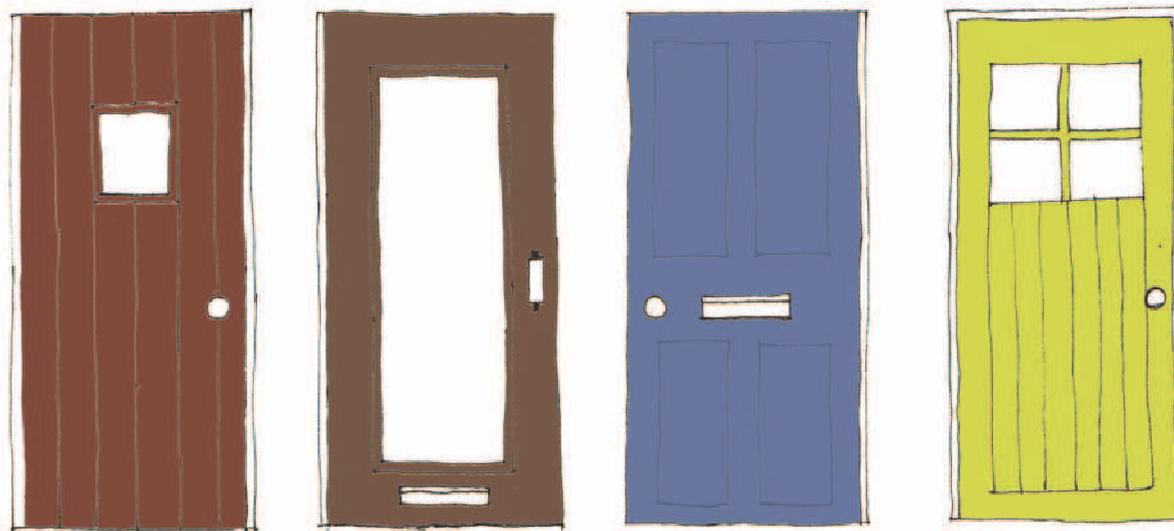
Door design shall be of traditional design and be of hardwood finish. Over elaborate design are discouraged. The doorways shall be symmetrical, vertically sheeted and glazed paneling may be considered to be inappropriate.

Avoid elaborate ornate doors, PVC and aluminium doors.



Dormer Windows

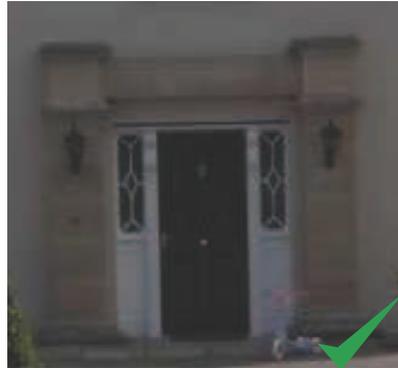
Each dormer window style maybe appropriate in certain cases, however it should be the general principle to use Traditional/Wall dormers or gable fronted dormer. In all cases the dormer windows must be appropriately placed on the dwelling and maintain the principles of good proportion and balance.



Traditional hardwood doors are recommended

Porches

An entrance "porch" should be of solid construction and be in character and proportion with the dwelling.



Balconies

Balconies on the front or side elevations of dwellings are generally considered to be unacceptable.



Cosmetic Features

In all cases cosmetic features such as mock classical columns, Spanish arches, verandas, balustrades to the front/side elevation should be avoided



Log Cabins

Log Cabins (completely finished timber buildings) are considered suitable in woodland or edge of woodland areas only.



"Tower Features"

"Tower features" on dwellings are generally unacceptable. This and the use of oversized windows on stairwells create an over-complicated design feature.

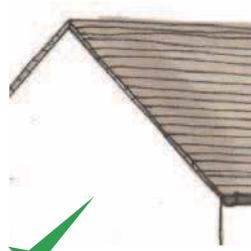


Roof Design

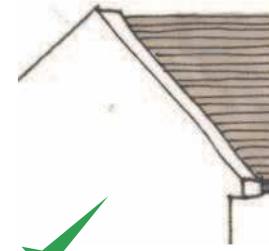
With traditional construction the roof of a dwelling was generally low and at a pitch of approximately 30°. This is as a result of the single room depth of a dwelling. The deeper the dwelling the higher the pitch of the roof and the greater the overall height of the dwelling.

Excessive roof heights and excessive roof proportions should be avoided.

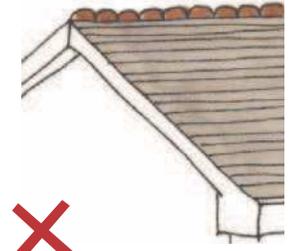
Only blue/black slates/tiles will be acceptable.



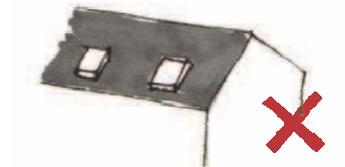
Simple edged roof - no edge trim



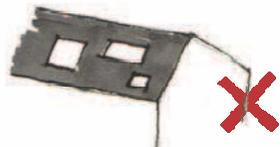
Coped Gable - Concrete/Plaster carried over gable to edge the roof



Avoid 'boxy' fascia and soffit



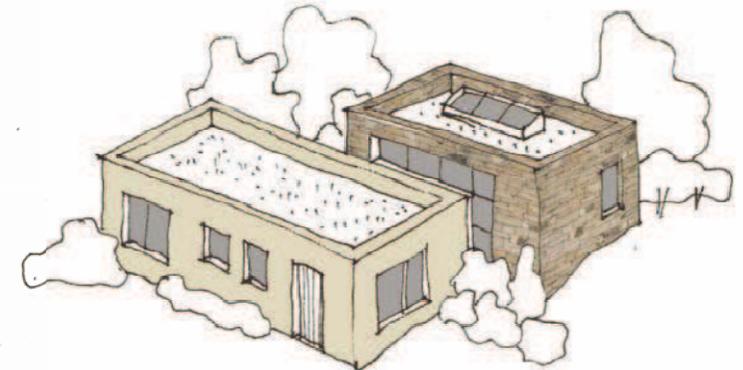
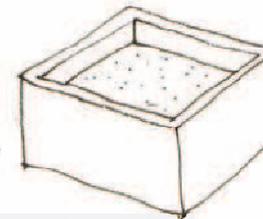
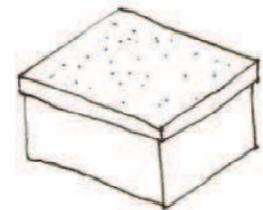
Avoid rooflights standing proud of roof



Avoid random shaped and sized rooflights



Similar rooflights flush with roof



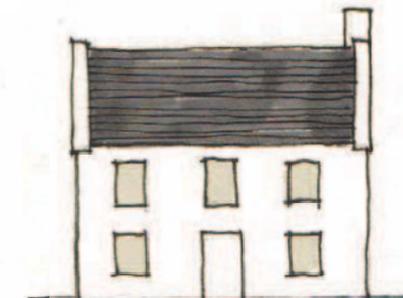
Flat Roof and Parapet roofs may be used where there is high quality design and construction



House in Shercock, Co. Cavan, Frank Cooney Architects - a good example of simple traditional roof design



A 30 degree roof pitch is recommended

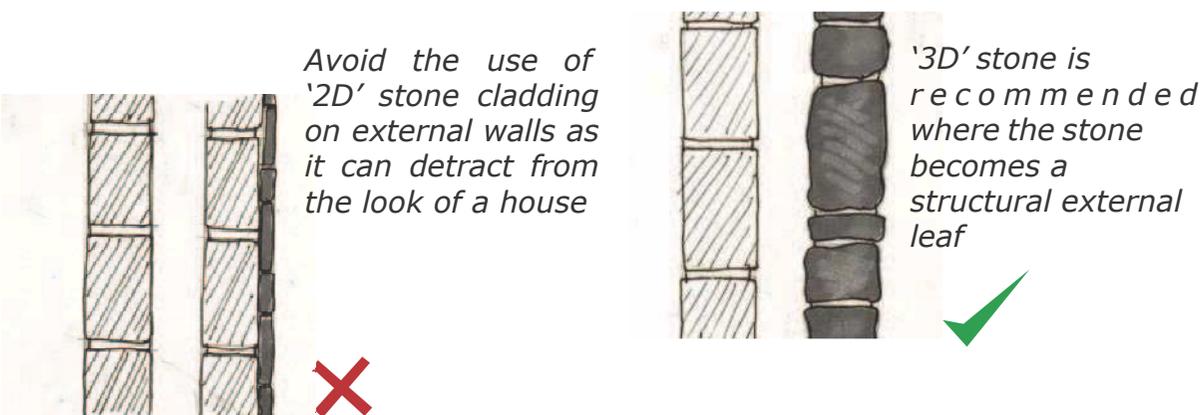


2.3 Materials

- External materials are best kept simple in order to ensure that the finished dwelling will integrate well into the landscape.
- Care should be given to the selection of external materials as some are unsuited to certain rural areas e.g. brick, dry dash, artificial stone etc.
- The use of nap/smooth plaster and natural stone is encouraged.
- Natural slate should be used - slates should be dark in colour.

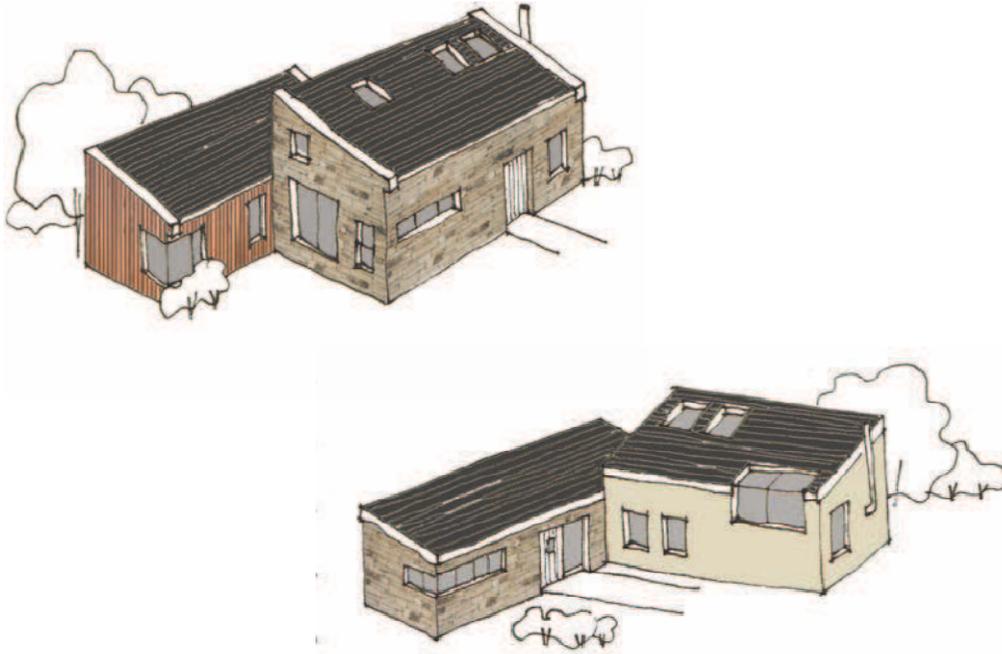


When using stone as an external material create '3d' elements (by using 3 to 4 faces of part or all of the building) rather than cladding one face.

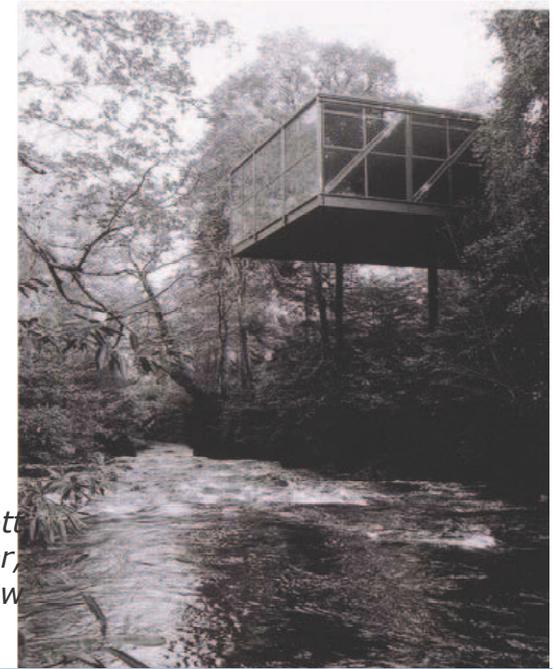


2.4 Contemporary Design

Dwellings of high quality contemporary architectural design can be incorporated into the Cavan landscape if sensitively sited, scaled and detailed.



Goulding House, Scott Tallon Walker, Co. Wicklow



Mimetic House, Dominic Stevens, Co. Leitrim

3.0 Landscaping

Landscaping may take many years to become fully established, especially on exposed sites. It is therefore preferable to make use of existing boundaries/hedgerows and to incorporate new planting of natural species to assist with screening.

3.0 Landscaping

Trees, shrubs and hedgerows help to make a proposed development more attractive in the countryside by adding screening, colour and texture to the proposed development.

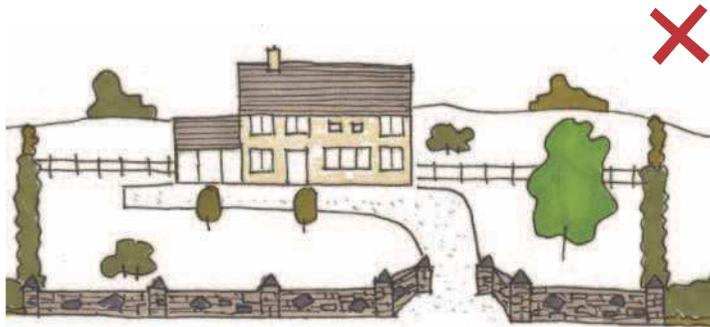
If landscaping is carefully planned and integrated into a site, it will enhance a proposed development. Landscaping can also provide shelter and privacy to a development.

All applications should be accompanied by a Landscaping Scheme which will include details of:

- any new boundaries
- front boundary treatment
- entrance elevation including gates and piers
- trees to be retained or types of new trees to be planted

Where there is an abundance of tree, hedgerow and vegetation coverage, it may be necessary to submit a detailed survey of the exact location & proposed retention of same.





Avoid replacing indigenous boundaries with insubstantial fencing, blockwork walls, post and wire fencing, concrete balustrading, Leylandii or other dense conifer planting.



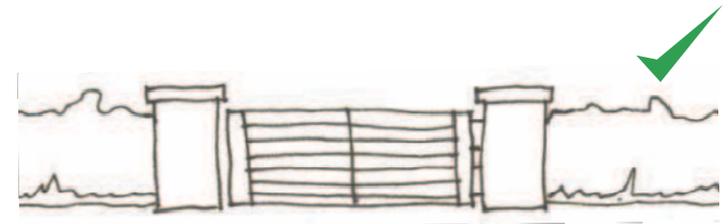
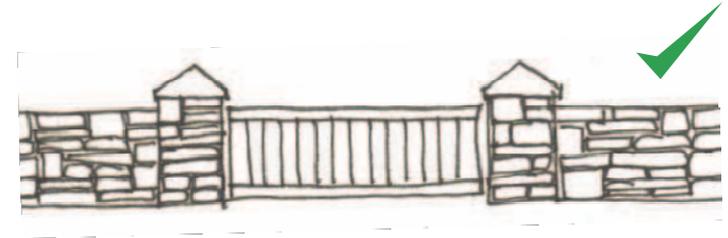
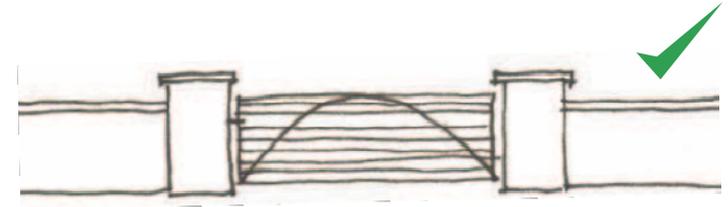
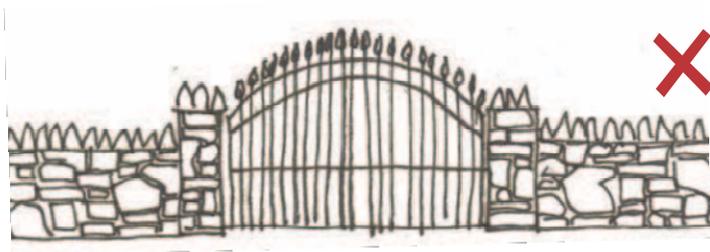
3.2 Entrance/boundary

- Hedgerows should be retained where possible, so as to add to the visual attraction of a proposed structure. Good design and siting can be destroyed by inappropriate front boundary treatment. The boundary should be appropriate to its rural context; to retain the existing front boundary where possible by just making a simple splayed or bell mouthed opening. If traffic safety requires that it must be set back, always aim to re-establish what is existing i.e. hedgerow for a hedgerow, rubble for a rubble wall. Random rubble walls are more preferable as they help encourage nesting/plant growth - biodiversity.
- Plant new native hedgerow at the commencement of building works. Remember that native hedgerows as well as being visually attractive and offering screening and privacy are important wildlife corridors. New hedgerows should be linked to existing to facilitate this. Where there is more than one boundary type, existing boundaries should be continued rather than introduce a new boundary type.
- Stone walls should be retained where possible.
- Fencing should be timber post and rail; PVC is not generally acceptable.



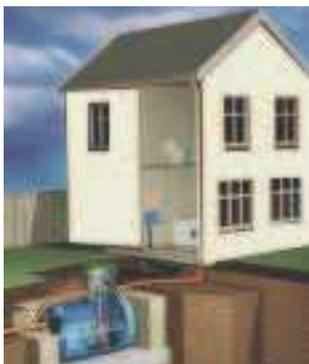
Gates

Gates should be of a simple design – metal or wood and with a strong horizontal emphasis.



4.0 Sustainability

The installation of renewable energy sources such as solar panes, domestic wind turbines and geothermal heating systems are encouraged as it should contribute towards the reduction in the consumption of fossil fuels and production of CO2 emissions.



The EU Directive on the Energy Performance of Buildings (EPBD) contains a range of provisions aimed at improving energy performance of residential and non-residential buildings, both new-build and existing. This Directive was adopted into Irish law in 2006.

As part of the Directive, a Building Energy Rating (BER) certificate, which is effectively an energy label, will be required at the point of sale or rental of a building, or on completion of a new building.

The installation of renewable energy sources are encouraged in principle on existing or new dwellings.

Renewable energy resources are abundantly available. The main sources are:

- The sun (solar energy)
- The wind
- Water (hydropower, wave and tidal energy)
- Heat below the surface of the earth (geothermal energy)
- Biomass (wood, waste, energy crops).

Use of Local Craftsmen

It is also beneficial to sustainable development, and the economy of the locality, if use is made of local materials and local craftsmen. Through utilizing the skills of the craftsmen in the locality the distinctiveness of local workmanship and the elements of craft they bring will be valuable in the development of the project.

5.0 Design Statement

Every application for a one off dwelling in the Cavan countryside should be accompanied by a design statement. The design statement should demonstrate how the site was chosen and how the site layout and house design took into consideration the advice in these guidelines.

Including a design statement with your application will enable the Planning Authority to suitably assess your application for a house in the Cavan countryside.

The **Design Statement** shall include the following:

- 1. Site Location**
Indicating site location in context of overall land holdings
- 2. Site Analysis**
Provide site analysis in terms of location, aspect, views, slope, prevailing winds, sun path, shelter, screening, site entrance, existing buildings and features etc
- 3. Site layout**
Indicating location of dwelling on the site in terms of sun path, shelter, screening, views and aspect etc.
- 4. Concept Sketches**
The starting point for the design process – providing sketches of house type
- 5. Justification** for locating and siting of dwelling
- 6. Sustainable design**
 - How sustainable design features will be incorporated into the dwelling using
 - Renewable energy eg solar panels, wind turbines etc.
 - Using natural materials such as slate and timber, lime and water based paints
 - Reducing energy requirements for the dwelling
 - Maximizing natural sun light, natural ventilation
- 7. Landscaping plan** shall include
 - details of any new boundaries front boundary treatment
 - entrance elevation including gates and piers trees to be retained
 - types of new trees to be planted

Appendices

Check list for Planning Application

1. Application form fully completed, signed and dated
2. Appropriate fee
3. Relevant page of approved newspaper in which notice was published
4. copy of site notice – signed and dated (date erected)
5. 6 copies of location map
6. 6 copies of plans, including site or layout plan and drawings of floor plans, elevations and sections
7. Rural housing application form
8. Site suitability assessment report
9. Design statement including landscaping plan

Please note this is not a definitive checklist – onus remains on applicant to ensure that applications are in full accordance with Planning & Development Regulations.

List of Native Species

Trees

English

Sessile Oak
Pedunculate Oak
Wych Elm
Ash
Silver Birch
Downey Birch
Alder
Common/Wild Cherry
Bird Cherry
Aspen
Goat Willow
Grey Willow
Bay Willow
Eared Willow
Holly
Rowan
Whitebeam
Crab apple
Yew
Juniper
Scots Pine
Strawberry Tree

Latin

Quercus petraea
Quercus robur
Ulmus glabra
Fraxinus excelsior
Betula pendula
Betula pubescens
Alnus glutinosa
Prunus avium
Prunus padus
Populus tremula
Salix caprea
Salix atrocinerea
Salix pentandra
Salix aurita
Ilex aquifolium
Sorbus aucuparia
Sorbus hibernica
Malus sylvestris
Taxus baccata
Juniperus communis
Pinus sylvestris
Arbutus unedo

Irish

Erica lusitanica
Dair ghaelach
Dair ghalida
Leamhán sléibhe
Fuinseóg
Beith gheal
Beith chlúmhach
Fearnóg
Crann silín fiaín
Donnroisc
Crann creathach
Saileach dubh
Saileach portach
Cuileann
Caorthann
Fionncholl
Crann fia-úll
Iúr
Aiteal eireann
Giúis albanach
Crann caitne
Fraoch crann

Shrubs

English

Hazel Hawthorn
Blackthorn or Sloe
Guelder Rose
Spindle
Alder Buckthorn
Purging Buckthorn
Elder
Broom
European Gorse
Irish Gorse
Creeping Willow
Common Privet

Latin

Corylus avellana
Crataegus monogyna
Prunus spinosa
Viburnum opulus
Euonymus europaeus
Frangula slnus
Rhamnus catharticus
Sambucus nigra
Cytisus scoparius
Ulex europeus
Ulex gallii
Salix repens
Ligistrum vulgare

Irish

Coll
Sceach gheal
Draighean
Caorchon
Feoras
Ramhdhraighean fearnóg
Rahmdhraighean cuiteann
Tromán
Giolcach shléibhe
Aiteann coiteann
Aiteann eireann
Saileach Beag
Prímhéal

source: www.crann.ie



Hawthorn



Blackthorn



Guelder Rose



Bramble

Acknowledgements & accreditation

These guidelines have been prepared as a project for the **Leadership Development Programme** with Cavan County Council. The **Leadership Group members** for this project were:

Brian Hora, Cavan Town Council

John Lovett, Fires Services, Ballyjamesduff

Gary Boyd, Water Services Section

Noeleen Shannon, Planning Section

Vincent Craig, Water Services Section

We would like to acknowledge and extend a sincere thanks to the following people who helped with this project:

- **Jennifer Allen (B. Arch.)** who worked very hard on the layout, design and sketches included in these guidelines.
- our **Project Facilitator**, Eve Harrison, Planning Section and our **Project Sponsor**, Ger Finn, Director of Services and all the planners in the Planning Section of Cavan County Council who contributed to this document.
- the **architects** who were involved in the workshop in the early stages of this project, which greatly informed and influenced the thinking behind these guidelines.
- the members of the Economic, Rural Development and Planning Strategic Policy Committee for their advice and input