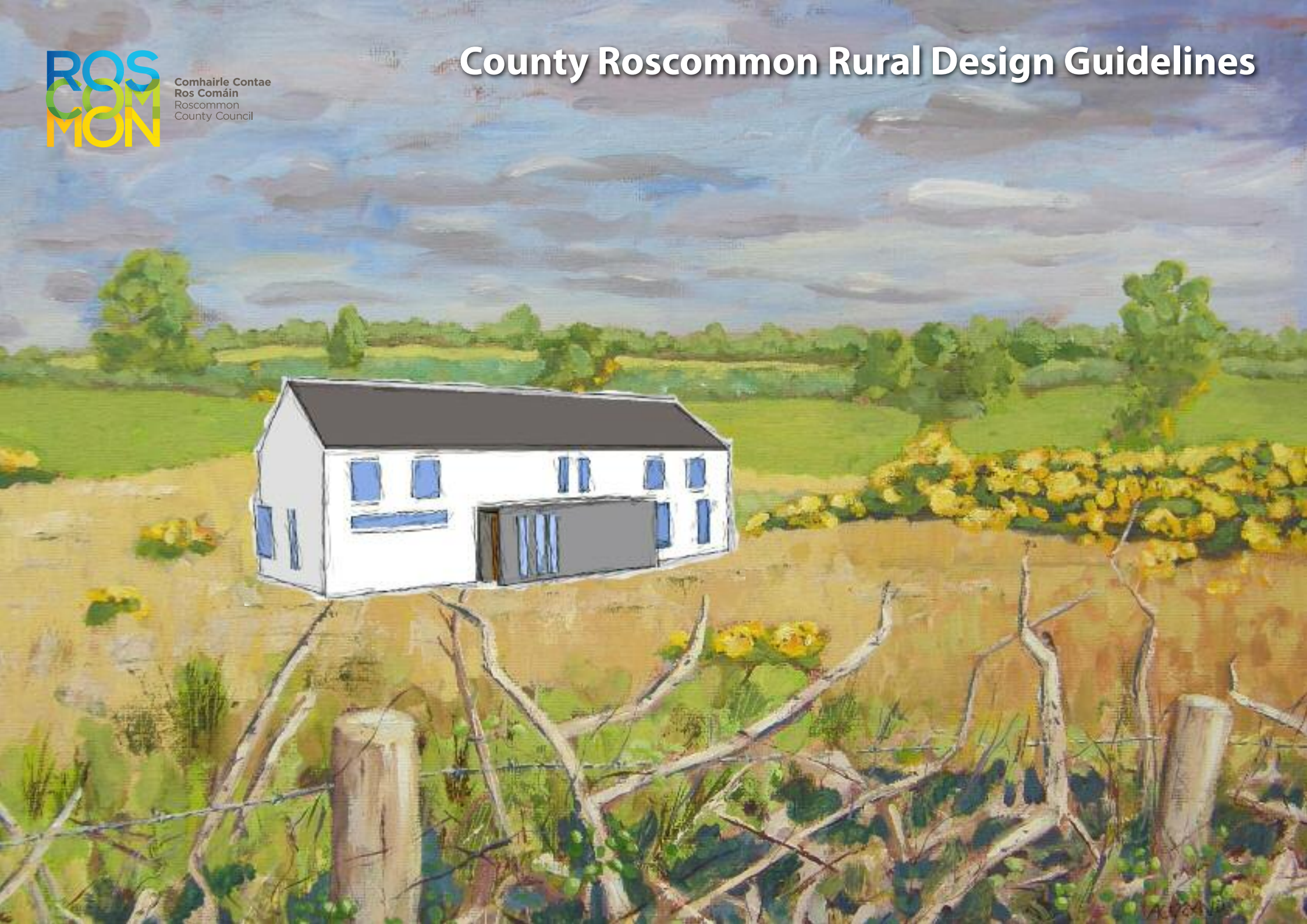
Comhairle Contae
Ros Comáin
Roscommon
County Council

County Roscommon Rural Design Guidelines



Foreword

This guidance Document has been prepared as supplementary to the Roscommon County Development Plan. The policies and proposals of that plan set out the planning context for development in the county. Certain detailed matters can be more readily dealt with in this supplementary guidance format. The purpose of this guidance document is to provide information and advice on the design considerations which should be taken into account to successfully integrate single new dwellings into the landscapes of County Roscommon.

The intention is to encourage a more sympathetic approach to the siting, location and design taking more regard of the traditional building styles of the locality and paying due respect to the landscape within which that dwelling is to be sited. It will assist people in choosing an appropriate location and design for their home and provide a consistent approach in determining applications.

The Guide gives a clear indication of what Roscommon County Council will require when considering the merits of a planning application. The Guide has been prepared to highlight the importance of choosing the most appropriate site and sensitive design which can determine the outcome of the planning application and the integrity of the proposal to its site context.

The Guidelines are not intended to be prescriptive; rather the purpose of the guide is to make clear those issues concerned with achieving good siting and design. This Guide gives advice to the applicant on whether or not the proposal is appropriately positioned in the context of the site. The design of the house should take into consideration the land and its rural surroundings. This can inform the architectural style best suited to the design quality of the house whilst enhancing the visual amenity of the countryside.

Also the design guide has refrained from the 'pattern book' of good designs instead it explains the principles of good rural house design. On the issue of design, the Guide aims to inspire modern/contemporary designs with local traditional building forms. The Guide can promote a 'smart build' philosophy for energy efficiency to reduce costs for one-off houses in the countryside.

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1. Introduction

Introduction

1.1 Purpose of the Guidelines

The rural design guide has been prepared to assist people in making a planning application for the refurbishment of an existing dwelling, replacement of a dwelling as well as the construction of a new dwelling in the countryside. The guide shows the importance of good siting and sensitive rural housing design when building in the countryside. The guide does not aim to assert generic responses to the rural countryside instead it highlights to users, the benefit of appropriate design in relation to issues of siting, orientation, local materials and building elements. It is recognised that both traditional and modern design can inspire and develop attractive buildings that contribute to the landscape and the rural character of the area. The guide aims to inspire contemporary design that is uniquely Irish in origin in a way that is authentic, creative and a worthy contribution to the built heritage for County Roscommon.

1.2 The Aim of the Guidelines

The guide addresses how a design project should be approached and how to stimulate debate about the fundamental principles which best inform rural house design. This guide provides a step by step approach on site selection, site layout, form and shape, proportion, massing and volume, orientation, passive solar gain, adaptability of design and modern energy technologies. This document highlights the key issues to be considered when determining either the success or failure of the new house in rural County Roscommon.

The guide seeks to achieve the following;

- To ensure houses are in an appropriate location
- Encourage a more sympathetic approach to the siting, location and design
- Integrate the house into the landscape
- Promote both traditional and contemporary building styles
- Encourage good quality local building materials and energy conservation through the use of energy saving technologies.

Introduction

1.3 How to use this Guide

The policies relating to Rural House Design are included in the Roscommon County Development Plan. This guide is structured in order to understand and develop an insight into its policies. This guide tells you about:

Landscape Character — what gives our rural areas their unique character and how do we preserve this character through new development
Our Place in the Landscape — exploring the settlement patterns and vernacular typologies
Siting and Integration — how we can integrate development with the landscape
Re-use, re-organise, re-place — how can existing buildings be used to their full advantage and how can you design top quality replacement houses
New Build — how should new buildings be designed to fit the landscape
Adding the detail — what features should be incorporated into the final design
Building for the Future — how do you improve the environmental standards of development in order to minimize costs and impacts on the surrounding environment

Within each section the key principles of quality design and sustainable development are clearly explained along with points to consider when replacing, extending, designing and siting buildings.

1.4 The Planning and Design Process

The design of a dwelling in a rural setting is not always a straightforward process. When preparing to submit a planning application there are a number of issues which need to be addressed to reach a favourable decision. The Guide is meant to assist the applicant and prospective developers to submit a favourable proposal for a dwelling in the countryside. During the planning and the design process the applicant should consider the following;

- **Site Selection** — Good siting is when a building appears to embrace the surrounding landscape rather than having a visual impact on its surroundings. Appropriate siting will consider the retention of existing topography, trees and hedgerows to respect its setting and to complement the visual integrity of its surroundings.
- **Site layout** — Determine the best layout by identifying existing features and ensure the design of the building is orientated to take advantage. The design of the proposed house must show consideration of the sites surroundings and the character of traditional buildings in the area.
- **House Design** — The design of the building should enhance the visual character of the area. In particular the house proposed should be appropriate to the site context and the design of the house should represent good proportioning.
- **Landscaping** — At the initial planning stage, landscaping should be considered to blend the house into the surrounding countryside. It is good practice to encourage landscape plans as part of the design submission for rural dwellings.
- **Sustainable Construction** — These design principles should endorse a 'built for purpose' philosophy in a way which promotes the lifetime adaptability of buildings.

2. Landscape Character

Landscape Character

2.1 Landscape Character:

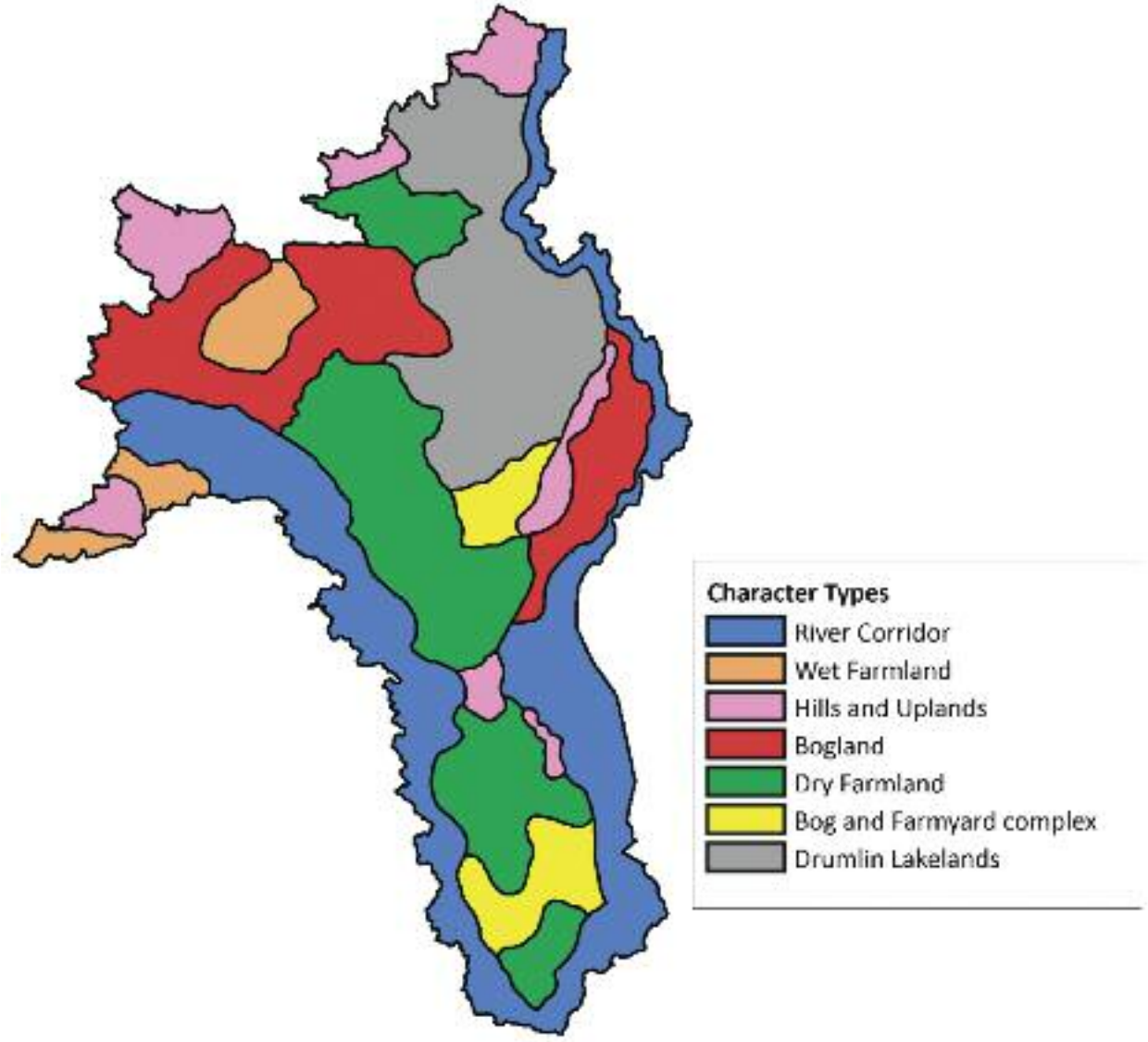
The landscape of County Roscommon is diverse in nature. The county is bordered along the east and west by the Rivers Shannon and Suck respectively while the county also forms part of the central plain of Ireland. As a result the landscape of Roscommon is mostly low-lying while upland areas are present in the north of the county as well as confined areas in the west and south.

The geology of the county is dominated by limestone with older sandstone rock formations present in upland areas southeast of Strokestown, north of Boyle and upland areas northwest of Ballaghaderreen.

This bedrock foundation, together with glacial activity has created the landscape of the county today. This is evident in features such as eskers, turloughs, drumlins, raised bogs and the upland areas such as Sliabh Bawn, Sliabh Dart and the Curlew Mountains.

The Landscape Character Assessment (LCA) of County Roscommon, contained within the County Development Plan, is an in depth study, appraisal and characterisation of the varying landscape typologies within the county. The LCA also identifies four landscape values; Exceptional, Very High, High and Moderate.

Seven main Landscape Character Areas have been identified as follows: River Corridor; Wet Farmland; Hills and Uplands; Bogland; Dry Farmland; Bog and Farmyard complex and Drumlin Lakelands.



Landscape Character

2.2 Landscape Character Areas

River Corridor:
This area is located along the eastern and western boundaries of the county. The Shannon system has been classified as of Very High Value and is of high aesthetic and ecological quality. The River Suck corridor is judged to be of High Value due to its amenity, ecological and aesthetic qualities. Careful attention should be paid to materials and colour for possible developments. Native tree planting should be used to soften the impact of ridgelines in low-lying areas.

Wet Farmland:
This area is concentrated in the north west of the county. The landscape has been classified as of Moderate Value and changes from upland areas of Fairymount and Sliabh Dart to lowlands at Lough Gara and Cloonfad Bog while Esker ridges are prevalent in the west. Attention should be given to scenic views and the visual quality of the landscape. The inclusion of native planting where possible and specifically for boundary treatments should be encouraged.

Landscape Character

Hills and Uplands:
This area is mostly located in the north of the county but also includes relatively confined areas in the west and centre. The area is of high aesthetic quality and provides important scenic amenities. The design of future developments should protect the scenic quality of the landscape and achieve a more sympathetic integrated approach with regard to siting, materials, colour and landscaping. Care must be taken that elevated and panoramic views are not lost or materially altered.

Bogland:
This area is located throughout including along river corridors as well as in the east and northwest of the county. The Sliabh Bawn and Feoirish Bogland Basin has been classified as being of Very High Value due to their high aesthetic and ecological quality. The Castlerea Bogland Basin is classified as of High Value due to its tranquillity and ecological quality. The landscape is very vulnerable to change and care should be taken not to permit housing that would erode the qualities of the area as well as the sense of remoteness.

Landscape Character

Dry Farmland:
Located in the middle of the county, this area stretches from north to south. The Rathcroghan Plateau has been classified as of Exceptional Value due to the cultural heritage significance of Rathcroghan. The hinterlands of Boyle and Roscommon Towns have been classified with very high and high values due to their high aesthetic quality and cultural heritage significance respectively. Future development will need to be sensitively located and of a high quality design which will not adversely impact on the surrounding landscape character.

Bog and Farmland Complex:
This area is located in the south and middle of the county and highlights the interface between wetter and drier land. The landscape has been classified as of Moderate Value and comprises of low-lying bog land, eskers and the foothills of Sliabh Bawn. Future development should be directed to lower ground in farmland areas where the natural vegetation can assist in the assimilation of the proposed into the landscape.

Landscape Character

Drumlin Lakelands:
This area is located in the northern half of the county. The Lough Key and Boyle River Network have been classified as of Exceptional Value due to their aesthetic and amenity qualities. The area comprises low undulating drumlins interspersed with a number of large lakes. Drumlin landscapes typically have a reasonably high assimilative capacity for built development. Care should be taken, however, to ensure that views from elevated ground, for example overlooking lakes, are not marred by intrusive development.

2.3 Our Landscape

The quality and character of our landscape is crucial to economic diversification and cultural well-being. Our landscape has its own individual character and identity, within this distinct landscape the traditions of agriculture, fishing and forestry is practiced and there is potential for the ongoing expansion for tourism. In the interest of sustainable tourism it is important to protect the countryside but also conserve rural areas for their natural beauty and for their character both socially and environmentally. We need to work with the landscape in a manner that respects both the siting and location of new housing in the countryside. It is essential to embrace the values of landscape character areas in order to achieve sensitive development.

3. Our Place in the Landscape

Our Place in the Landscape

3.1 Settlement Patterns

The variations in settlement patterns in Roscommon reflect the population density, size of holding and the topography of the land. The patterns also reflect the environmental factors present in the county as well as the socio-economic trends.

Our present rural environment is reflective of a number of distinct phases of development. These range from the settlements and subsequent rebellions in the 16th Century, to the emergence of large demesne estates, the aftermath of the Great Famine and the land re-organisation schemes introduced by the Congested Districts Board and the Irish Land Commission as well as the development patterns of the present day.

Many of the towns and villages originated as bridging points on rivers, as defensive positions and as good locations for religious settlements or mills. While the majority of settlement remained rural and town structures remained small, some residential development did take place in settlement centres as their market influence grew.

The changing of farming practices along with the re-organisation of land led to the breaking up of larger estates and the emergence of smaller holdings. This also had an effect on the field enclosures within the county. The character and composition of field boundaries vary according to the type of hedgerow and the construction methods of the boundaries.

3.2 Settlement Groupings

Outside of our towns and villages examples of less formalised settlement patterns are evident across the county. Many of these patterns are linked to the history of the county and the land ownership which prevailed. Land reform measures introduced by individual landowners contributed to the modification of settlement patterns. The rural settlement patterns were also modified as a result of the transition from tillage to pastoral farming.

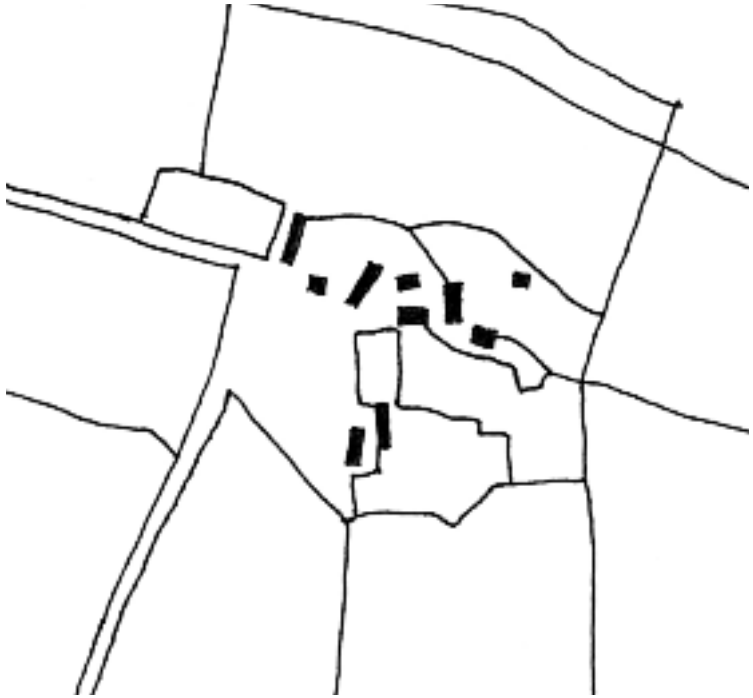
The "clachan" style settlements were pre-dominantly distributed in areas of marginal agricultural land while there is also evidence of such patterns in drumlin areas and throughout the Shannon floodplain. By the end of the 19th century the "clachan" style had all but disappeared and the dispersed farmstead had become the dominant unit of rural settlement. Towards the middle of the 20th century the pattern of development had moved to road-side locations in more accessible areas than those occupied by the older settlement patterns.

Our Place in the Landscape

Clachan Settlements

A clachan is a group of at least three adjacent dwellings concerned exclusively in agriculture. They are nucleated groups of farmhouses with associated outbuildings. The settlements were arranged in accordance with the rundale system which was a form of common occupancy or tenancy of land which allowed equal access to the land.

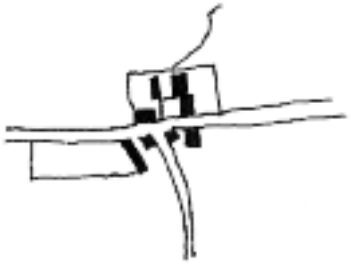
The area where the small dwellings were concentrated was situated in a cluster on the best land which was surrounded by land of inferior quality where the livestock was grazed during summer or dry periods. Livestock were grazed together to alleviate pressure on growing crops and also to provide fresh pasture.



Typical example of a clachan layout

Extended farmyard

Courtyard farmyard



Parallel farmyard

Roadside farmyard

Dispersed Farm types

Land reform measures as well as changes in agricultural practices led to the rise in dispersed farm holdings. This settlement type has traditionally been associated with smaller holdings which have developed over time.

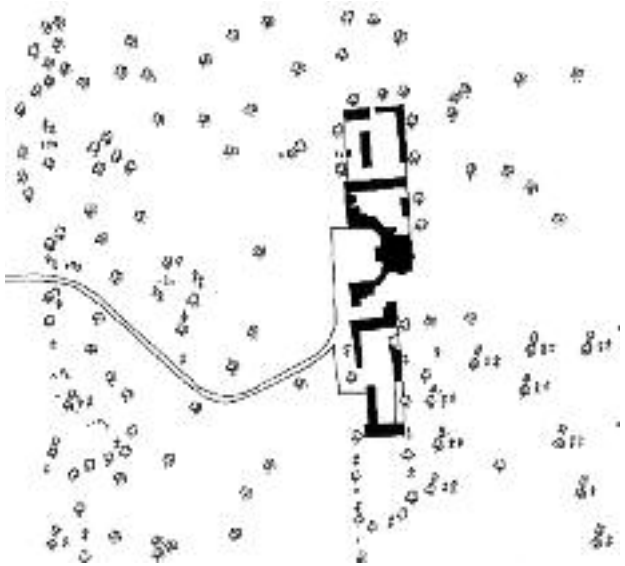
The settlements have taken many different forms such as extended, parallel, courtyard and roadside farmyard patterns. These in turn have several variations in their composition.

Our Place in the Landscape

3.3 Building types

Large Demesne Estates

The Great houses in County Roscommon have a low distribution, and are sited on secluded sites within large landed estates with high attention to landscape architecture with very deep setbacks from public road. These structures would have reflected prevailing international architectural styles rather than vernacular traditions.

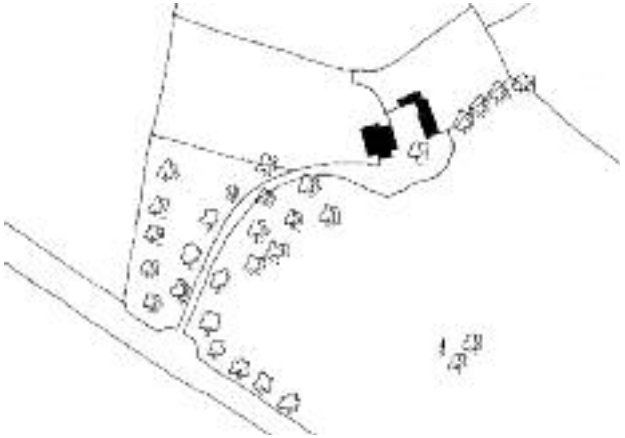


Middle size Country Houses

The 19th century saw the move from the large estate houses to more modest sized houses. The Palladian style which was popular in the larger houses was often used on these substantial middle sized houses. There siting was characterised by significant stands of mature deciduous trees. Outbuildings were often arranged to form a yard in proximity to the house.

Glebe Houses

Glebe houses are associated with nearby religious centres and emerged in the 19th century as a distinct type of house style. The house was sat in relatively flat landscapes and set back from the road. They were served by a tree lined avenue which was not centralised on the house itself which maintained the views from the house.



Our Place in the Landscape

Two storey vernacular farmhouse

With the re-organisation of landholdings in the late 19th and early 20th centuries a vernacular type emerged. These houses were 3 bay in form with a narrow depth, normally one room deep. The chimneys were located at the ridge and typically on the gables. They are typically accessed by a straight avenue aligned to the side of the house while some are located adjacent to the road. Associated out-buildings are adjacent, often forming a courtyard.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"The long house"

The traditional cottage was characterized by its stone walls and whitewash finish. The houses are one room deep with each room opening into the next. The original cottage would have been extended over time with enlargement of windows, replacement of roof and provision of an entrance porch being the most common improvements. The houses are often grouped with out-buildings to enclose a yard that fronts onto the road. The houses were typically accessed by a short avenue to the side of the dwelling and gables of the buildings often formed the boundary along the road.


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Single storey cottage

The single storey 3 or 4 bay dwelling became a popular model for individual dwellings in the first half of the 20th century. Often constructed by public bodies such as the Congested Districts Board and Local Authorities, the dwellings were set within their own plot and often mirrored the classical lodge type design. The dwellings introduced a central hallway and can be seen as the forerunner of the modern bungalow.


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Our Place in the Landscape

3.4 Vernacular Architecture of Co. Roscommon

Vernacular architecture is a type of community architecture using local building styles and materials. Vernacular architecture uses crafts and techniques which respond to the local climate, topography and socio-economic circumstances. House styles in the vernacular building tradition have evolved over centuries in response to their local environment.

The vernacular house has been remodeled over the past few centuries in line with the distinct phases of development in the county. During the late 18th and early 19th Centuries a trend of gradual enlargement of the traditional vernacular house form emerged. This did not however result in a break with vernacular architectural form. The tradition also retained its almost exclusively one room deep plan with façade windows larger than rear fenestration and the very restrained use of gable fenestration.

The large estate houses in County Roscommon have traditionally been of exceptionally low distribution, and sited on secluded and heavily screened sites within large landed estates. These structures would have reflected prevailing international architectural styles rather than vernacular traditions.

3.5 The built form in Co. Roscommon

Each county in Ireland has a mixture of building types that are particular to that area. There may be aspects of these buildings that are similar to those found in other parts of the country however they often take on subtle differences to connect them to that specific area. Within the county itself patterns emerge relating to house size, shape and materials which in turn reflect the landscape of the county. It is through these patterns that a sense of regional identity is formed.

Recent housing construction has seen a move away from the vernacular style to be replaced with a more generic type of dwelling. This has led to the reduction of regional identity which can be preserved by re-using and replacing our vernacular dwellings and by incorporating their characteristics when approaching the design of a new build rural house.

Characteristics of vernacular architecture include the following:

- Materials sourced locally
- Rectangular building form
- No more than one room deep
- Doors and windows on façade and back only
- Utilises local topography and vegetation for shelter
- Chimneys located at the ridge and typically on the gables
- The use of simple proportions to give aesthetic appeal


Other common building forms
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4. Siting and Integration

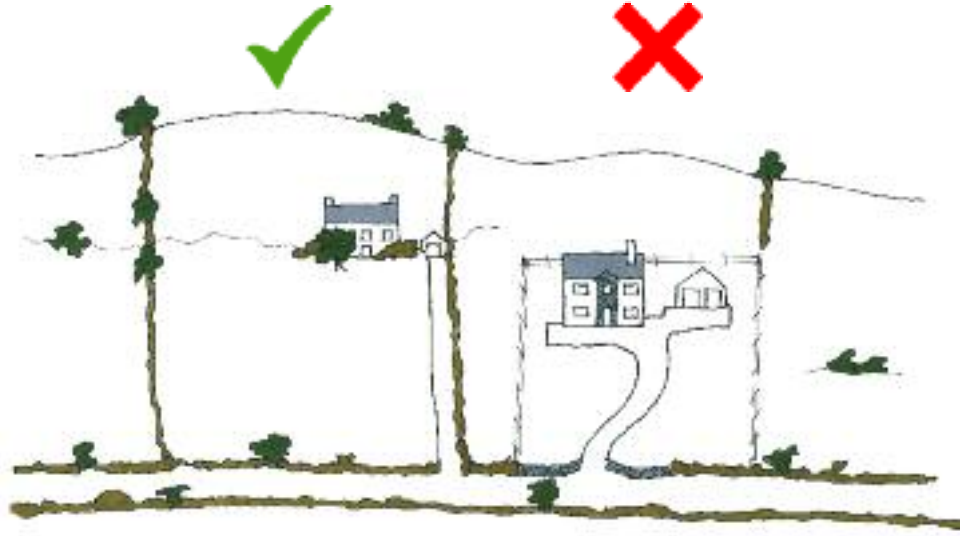
Siting and Integration

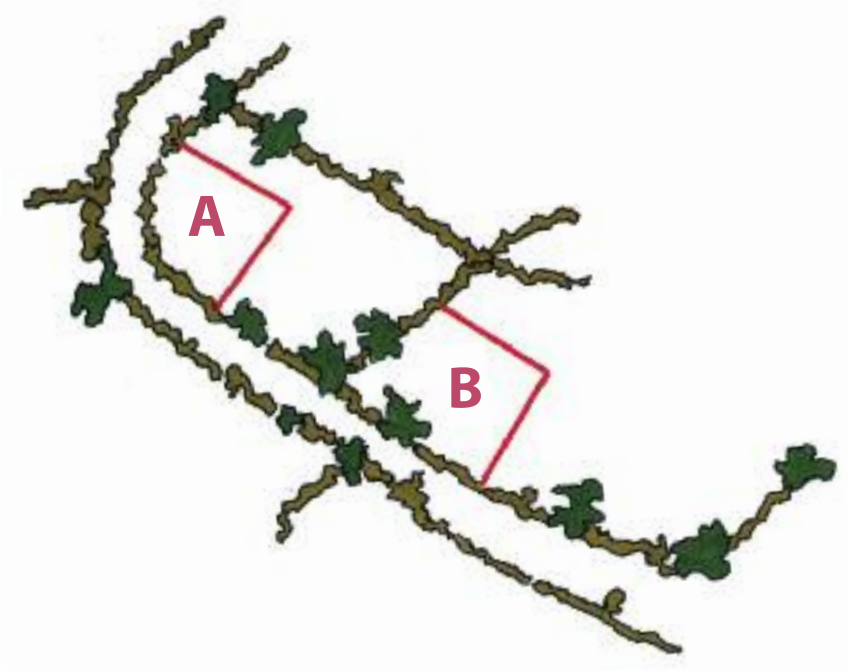
4.1 Choosing the right site

Of all the factors, site selection has the biggest influence on how successfully a dwelling can assimilate into its rural surroundings. While building form is also a crucial determinant, poor site selection places significant limitations on how you create your living space as its position in the landscape will make its assimilation difficult, while good site selections opens up significant number of potential possibilities for the creation of your living space.

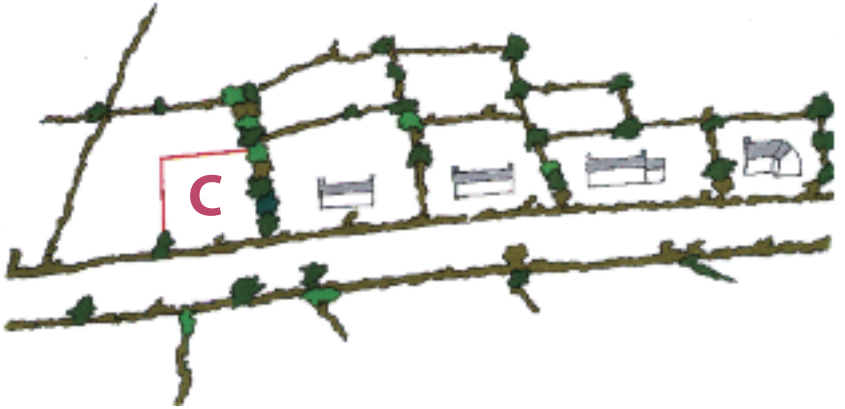
Essentially good siting is when a building appears to "belong" to the landscape rather than intruding upon it. The key to allowing a new dwelling to "belong in the landscape" is the selection of the correct site within the landscape and then to consider the characteristics of that site and develop the design of your house based on these characteristics.

It is important for a dwelling to pay particular attention to the existing contours on a site to determine if a specifically designed dwelling can be accommodated on a site, making use of and working with the site levels. Digging out the site can be expensive and the creation an artificial platform can make the site more prominent.





Site A is located too close to a corner which presents a danger to traffic safety.
Site B is located along a straighter section of the road with good visibility.
Site C is a poor location as it contributes to ribbon development.



Siting and Integration

4.2 Locating the house

The siting of a house in the countryside is the most important part of the process and if the site does not provide the necessary criteria, then other sites should be considered. In respect to the landscape character area, it will require the house to assimilate into the distinct landscape of County Roscommon.

Rural development pattern

The site should be sheltered and in close proximity to infrastructure and characteristics such as contours, vegetation and site orientation should be to the fore. The building should be orientated to maximise shelter as well as direct sunlight and elements such as the access and driveway should not have a greater impact than the dwelling itself.

A principle factor in house location on a rural site is the development pattern of the area which is fundamental in the ability of the dwelling to assimilate into the existing landscape. The pattern should reflect the character of the locality itself and at this stage it is important to differentiate between the rural and suburban pattern of development. In a traditional rural pattern, the dwelling is surrounded by the landscape and indeed forms part of the landscape as compared to the suburban pattern where dwellings occupy individual plots of land with the building form being the dominant object on the site. One of the biggest mistakes in recent rural house design is the attempt to "drop in" the suburban model in the rural setting.

Suburban development pattern

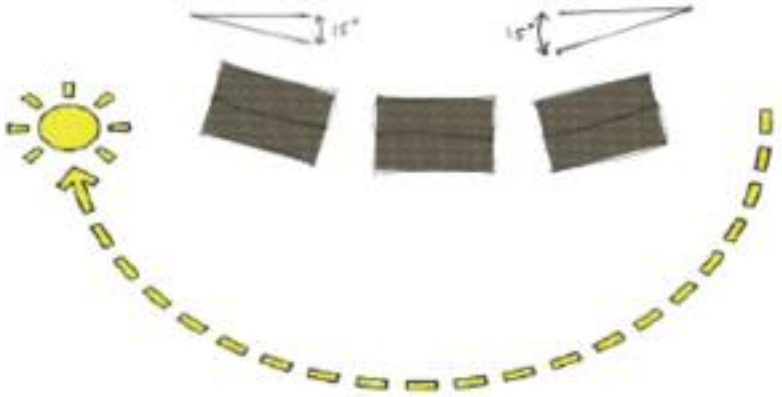
Siting and Integration

4.3 Working with sunlight

The sun is an important source of heat and light which is often taken for granted in house design. Advances in technology mean that we are now able to harness the sun's energy and use it to help heat our buildings, our water, and also to produce electricity. It is worth noting that Solar light can also be exploited in building design to minimise the need for artificial lighting.

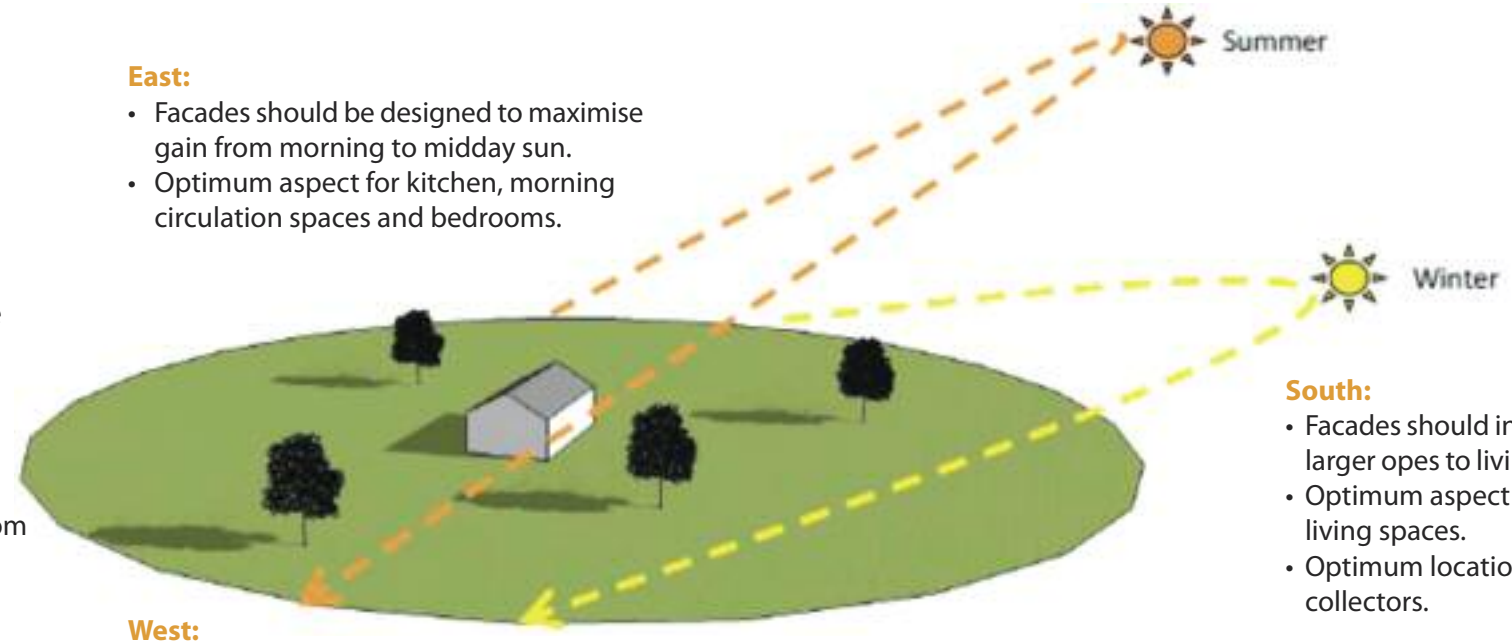
Passive solar heat is a term used to describe the heat gain which is, effectively, captured solar energy released as heat. Solar radiation is transmitted indoors through glazing and is then converted into heat when it is absorbed by surfaces such as concrete, stone or brick walls and masonry. The surfaces then store and release this heat within the building.

A building can then be designed to make maximum use of these gains, by optimising the room shape, room size, glazing size and type, room position and orientation (south facing rooms take most solar heat energy).



A building can achieve 30% energy savings if the dwelling is orientated within 15º of south once the living areas are arranged so as to avail of solar passive gains.

East:
- Facades should be designed to maximise gain from morning to midday sun.
- Optimum aspect for kitchen, morning circulation spaces and bedrooms.



North:
- Facades should have smaller opes to minimise heat loss.
- Rooms orientated towards the north may include a study, utility room, bathroom and corridors.

South:
- Facades should incorporate larger opes to living spaces.
- Optimum aspect for larger living spaces.
- Optimum location for solar collectors.

West:
- Facades should be designed to maximise gain from afternoon and evening sun.
- Suitable for evening living spaces and sun rooms.

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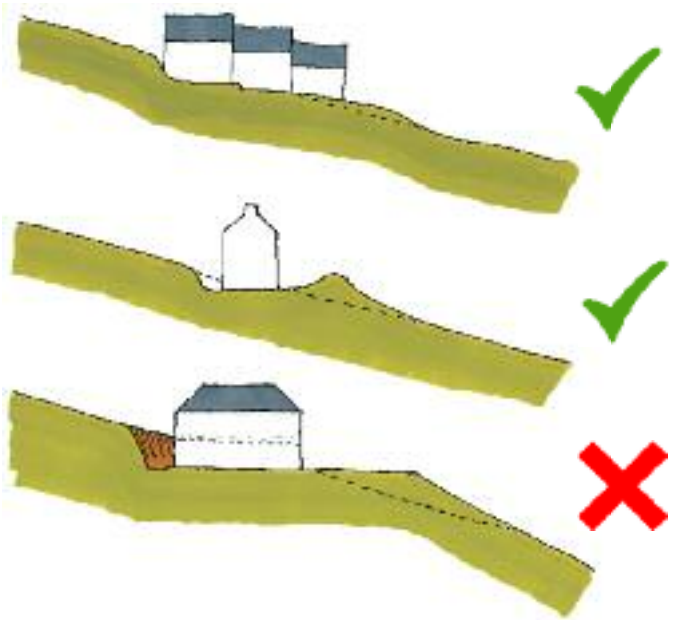
Siting and Integration

4.4 Dealing with contours

The sloping contours of a site play an important part when choosing the location of and indeed the specific design of a dwelling for a particular site. A good design approach will work with the existing contours of the site and integrate the dwelling *into* the site as compared building *on* the site. Excessive excavation or the creation of an artificial platform can lead to a conspicuous building which is unrelated to the site.



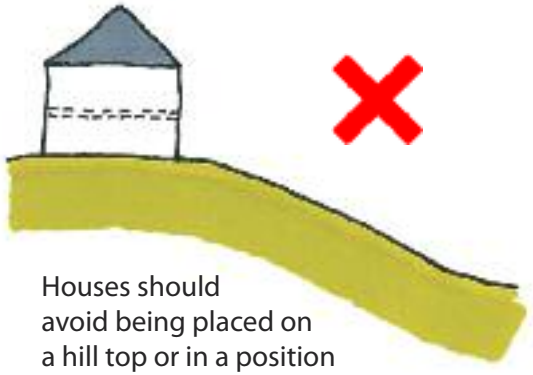
On sloping sites the house should ideally have stepped floor levels which reflect the contours of the site.

When excavation is necessary, narrow plan houses with minimal cut and fill is recommended.

Over scaled deep plan houses with large excavations and platforms should be avoided.

On flat or open sites, small scale houses are easier to blend into the landscape especially when supplemented by native species deciduous trees.

On relatively flat sites, large bulky houses should be avoided as it is very difficult to blend them into the landscape.

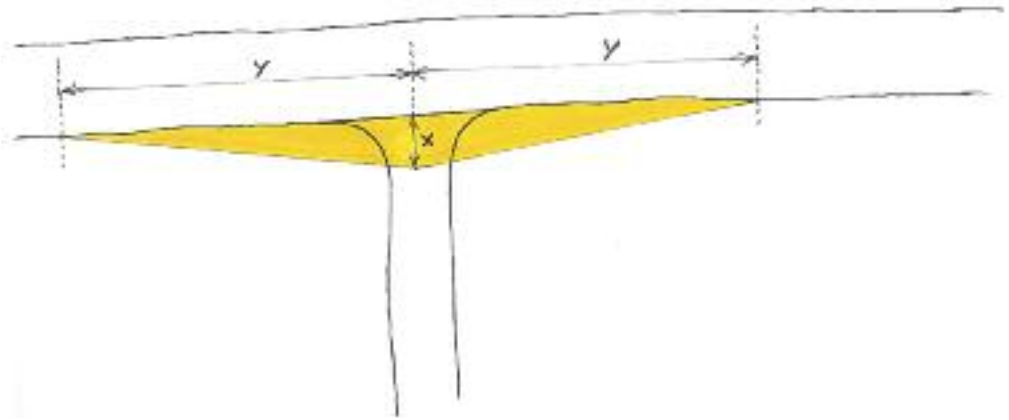


Houses should avoid being placed on a hill top or in a position where they break the horizon or skyline.

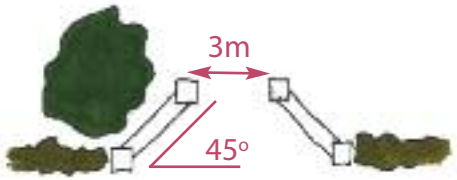
Siting and Integration

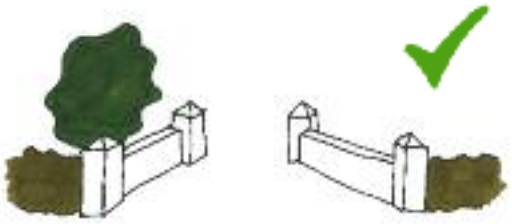
4.5 Access

A key consideration for siting a dwelling is the position and design of the access. A new access will often result in the necessary removal of roadside hedges and trees so that sight-lines can be achieved. The existing boundaries, hedgerows and walls should be retained where possible and if their removal is necessary, for example in the provision of visibility splays, they should be reinstated. Visibility splays for local roads will be determined on a site-specific basis subject to traffic safety. In general visibility splays of 90m are to be shown on local roads and 160m on regional roads.



Status of Road	X	Y
Regional Road	3.0m	160m
Local Road	2.4m	90m





New accesses should minimise the removal of existing hedgerow and stone walls. The appearance of the access should be offset from the location of the dwelling where possible, which can maximise the retention of the existing roadside boundary.

Where hedgerows or stone walls are removed to facilitate a new development (or upgrade an existing development) the replacement boundary treatment should endeavour to replicate the removed or disturbed boundary.

Roadside boundaries should be sympathetically scaled and should not be adorned with disproportionately elaborate entrance pillars and/or gate designs.

Ornate precast concrete wall and pillar cappings should be avoided along with metal railings.

Where timber fence arrangements are proposed they should not be over dominant in their construction. It is desirable that such fencing arrangements be backed with a hedgerow of natural tree species to offset their visual impact and blend in with the natural surroundings.

Unnecessary removal of hedgerows and trees should be avoided and non-indigenous hedge species should not be used.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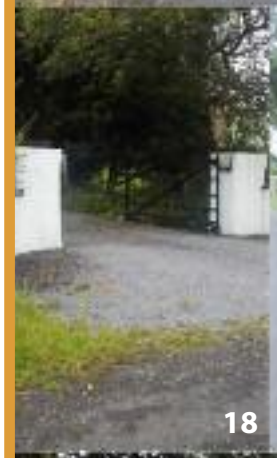
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Traditional gateways were modest in their style. This resulted in the minimised removal of roadside hedgerows. Wrought iron gates were often used and are good examples of high quality local produce.

The gateways around the larger country houses and demesnes were important markers and ornate designs were to the fore. These elaborate features are of a high quality design but are not suited to smaller sites.


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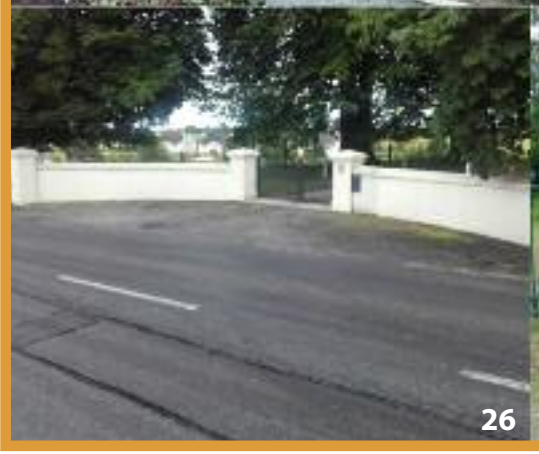
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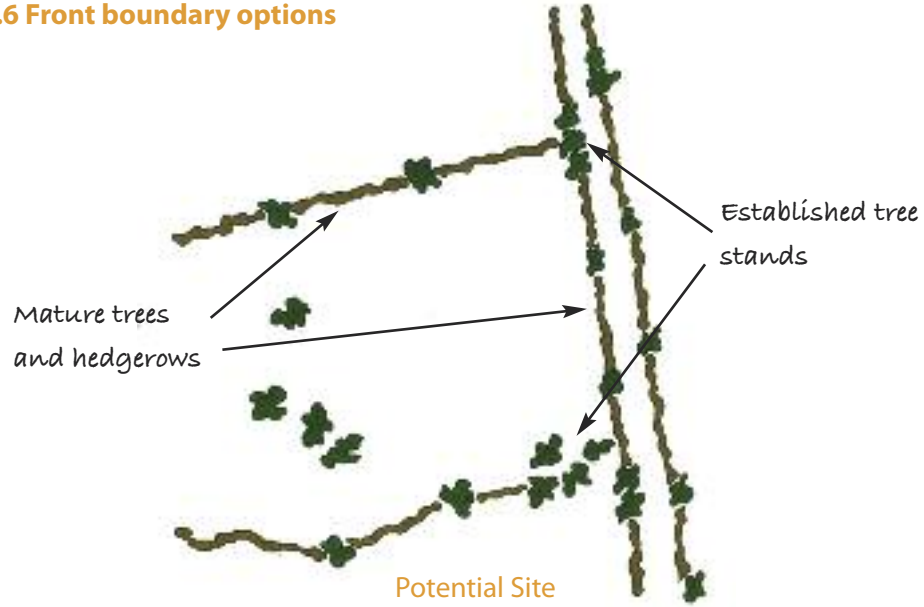
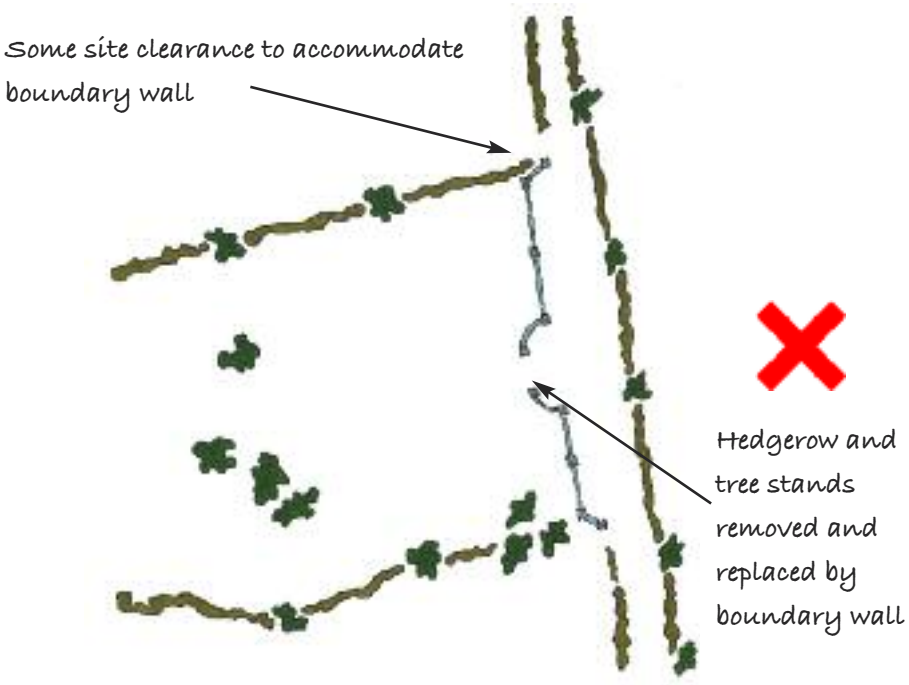
Siting and Integration

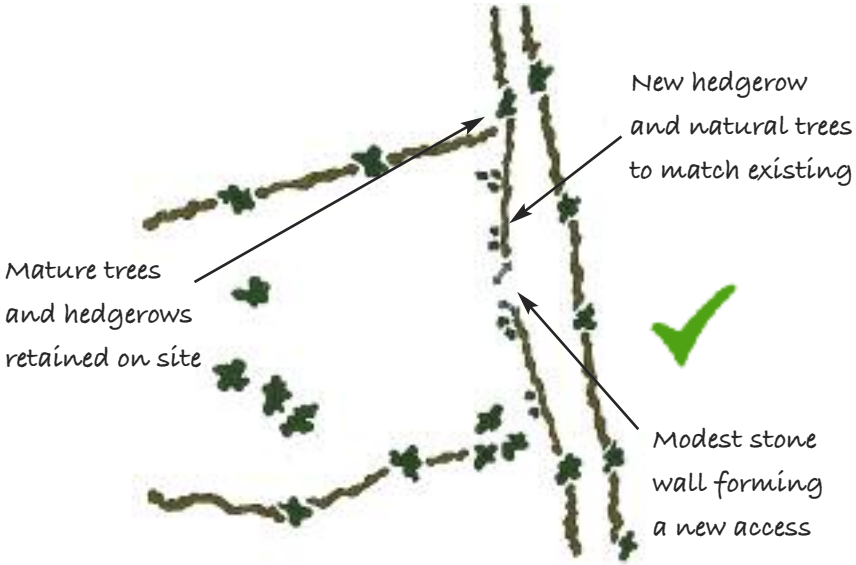
4.6 Front boundary options



Potential Site



Boundary option 1



Boundary option 2

Year 1 Year 5

A constructed berm with native planting can form an attractive boundary. This is especially suitable on a site where existing hedgerow is removed to provide sightlines.

Siting and Integration

4.7 Native trees and hedging

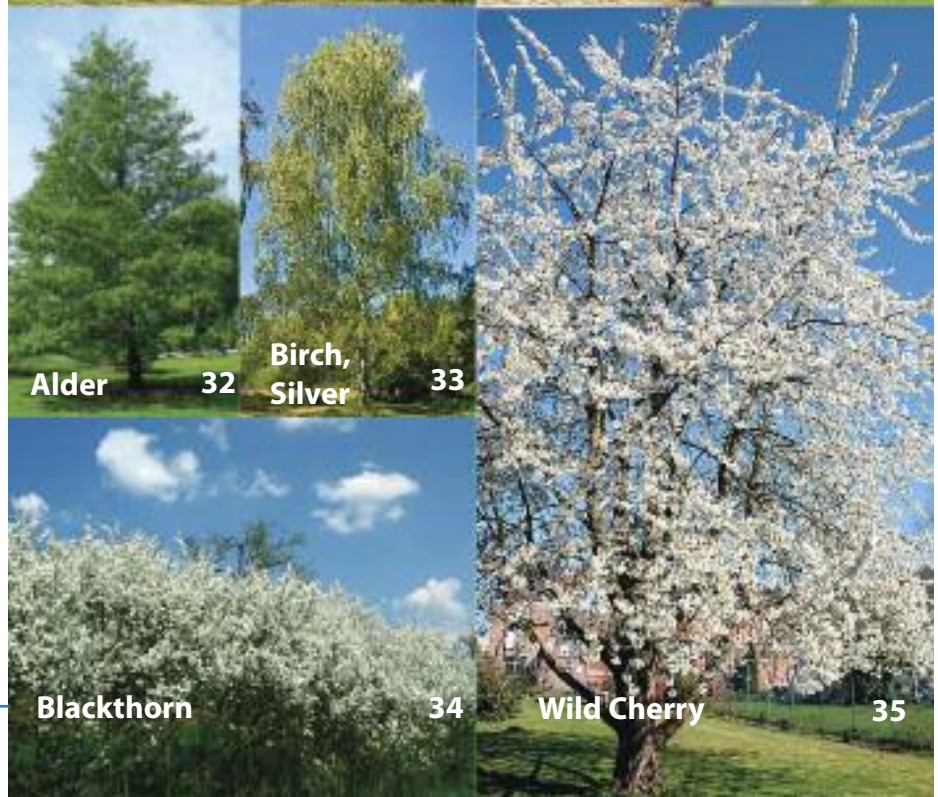
Native trees and hedging have been growing in Ireland for hundreds of years and have adapted to the environmental conditions of the country. Site clearance is often carried out when a new dwelling is about to be constructed and natural features such as trees and hedgerows are regularly cleared without considering the potential of these features. Native species are a prominent feature of the countryside in Roscommon and they can help to blend new developments into the surrounding landscape.

Name	Suitability	Suitable for hedges
Alder *Alnus glutinosa*	ADPS	
Ash *Fraxinus excelsior*	ADIPS	
Aspen *Populus tremula*	DPSV, not suitable close to buildings or services	
Birch, Downy *Betula pubesecnes*	ADIP	
Birch, Silver *Betula pendula*	AIP	
Blackthorn/Sloe *Prunus spinosa*	APV	✓
Cherry Wild *Prunus avium*	AI	✓
Crab Apple *Mauls sylvestris*	AIP	

A - Grows in a wide variety of soils **I** - Suitable as an individual tree **C** - Climber

P - Tolerates smoke or pollution **S** - Tolerates some shade **V** - Invasive

D - Tolerates or prefers damp conditions



Siting and Integration

Name	Suitability	Suitable for hedges
Elder *Sambucsus nigra*	AV	✓
Elm, Wych *Ulmus glabra*	PS	
Gorse, Common *Ulex europaeus*	V	✓
Guelder Rose *Viburnum opulus*	DIS	✓
Hawthorn *Crataegus monogyna*	AIPS	✓
Hazel *Corylus avellana*	AS	✓
Holly *Ilex aquifolium*	AIPS	✓
Honeysuckle *Lonicera periclymenum*	AC	✓

A - Grows in a wide variety of soils **I** - Suitable as an individual tree **C** - Climber

P - Tolerates smoke or pollution **S** - Tolerates some shade **V** - Invasive

D - Tolerates or prefers damp conditions

Siting and Integration

Name	Suitability	Suitable for hedges
Oak, Pedunculate *Quercus robur*	AI, only on large sites	
Oak, Sessile *Quercus petraea*	AI, only on large sites	
Rowan *Sorbus aucuparia*	AIP	
Scots Pine * Pinus sylvestris	AI	
Spindle *Euonymous*	S	✓
Willow/Sally *Salix spp.*	AD	✓
Yew *Taxus baccata*	AIPS	

A - Grows in a wide variety of soils **I** - Suitable as an individual tree **C** - Climber

P - Tolerates smoke or pollution **S** - Tolerates some shade **V** - Invasive

D - Tolerates or prefers damp conditions

5. Re-use, re-organise, re-place

Re-use, re-organise, re-place

5.1 Re-use and convert

There is a rich heritage of traditional farm buildings, industrial buildings, religious and educational structures within County Roscommon. While many of the buildings have fallen into disrepair, these buildings are an important contributor to the local character and are often undervalued in terms of their architectural potential. There is considerable potential to convert and re-use former schools, churches, mills and farm buildings in the county which will preserve these historic buildings which presently lie empty. This is an approach which underpins sustainable development in that it retains our built heritage while bringing empty structures into use. The re-use of these buildings can help to reduce the demand for new housing while also preserving the vernacular design of the area.

Old schoolhouses (above) and farm buildings (right) offer potential for conversion

Care should be taken to check whether the structure is on the Record of Protected Structures and if so the services of a Conservation Architect should be employed.

Successful conversion of a former Church.

Principles of converting:

1) Respect the existing structure and apply physical intervention in a minimised approach
2) Retain as much of the original fabric and the historical significance of the structure as possible.
3) Avoid materials or processes which would damage the historic fabric.
4) Ensure that new additions can be distinguished from the original.

Successful barn conversion, before (above) and after (below).

Re-use, re-organise, re-place

5.2 Re-organise and extend

Extending a dwelling is often seen as the obvious way to increase living space. However, it is possible to increase the living space provided through reorganising the rooms in the existing dwelling. Often when extensions are constructed, they are simply rooms that are added on to the existing dwelling. Together with the reorganisation of the existing space in the dwelling, an extension can provide a new living space. Extensions should not be seen as the addition of individual rooms to a dwelling but the reorganising of that dwelling to provide additional, functional living space.

Use of different material on the extension breaks up the dwelling mass

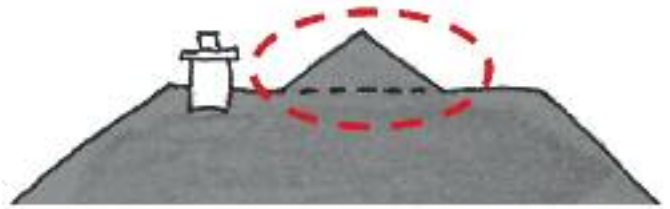
Contemporary extension to traditional dwelling

The design of the extension itself should be sympathetic to the existing dwelling and should ensure that the extension forms an integral part of the main dwelling unit. The design of the extension should also integrate with the existing dwelling in terms of height, scale, materials, finishes, window proportions.

In general the existing ridge line of the proposed extension should not break the existing ridge of the dwelling. Maintaining the existing ridge line or indeed stepping it down is much more appropriate.

When considering the options for an extension, the orientation of the dwelling and the site should be taken into consideration. Extensions built with the wrong orientation will not benefit from natural sunlight while properly constructed extensions can also provide an opportunity to create a courtyard area which will form a natural suntrap.

Contemporary extension to traditional dwelling



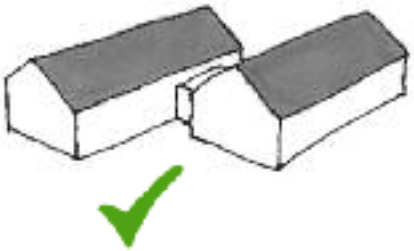
Avoid breaking the existing ridge line

Maximise solar gain with appropriate location of the extension

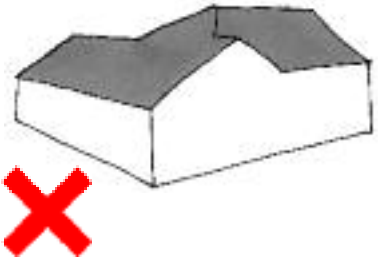
Re-use, re-organise, re-place

5.3 Extension forms

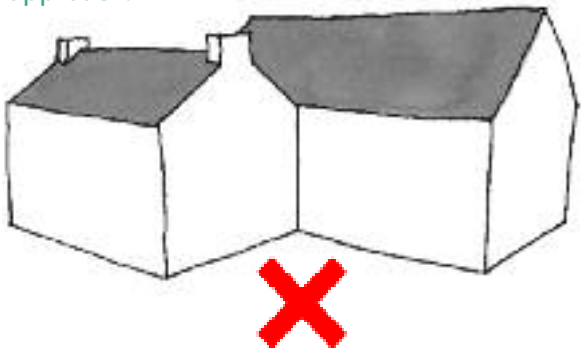
Only use flat roof extensions when the design is a high quality contemporary approach.



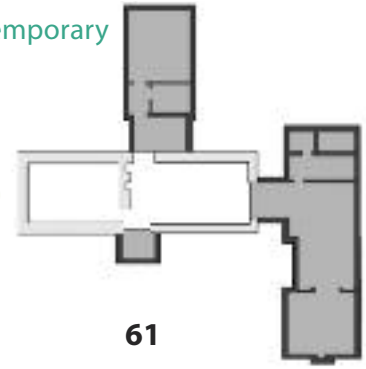
Parallel extensions are acceptable especially if the form of the existing dwelling is used.



Extensions should avoid breaking the existing ridge line of the dwelling. This is as a result of an extension with a overtly deep plan form.

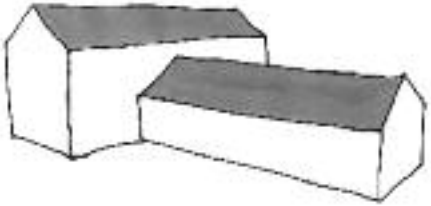


The extension itself should be sympathetic to the existing dwelling and not be over dominant.

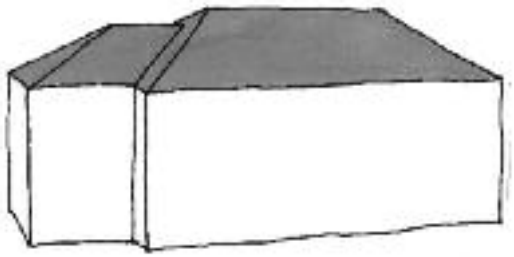


A good example of how massing can be broken down with well thought out extensions and renovations.

A glazed link between the dwelling and extension can provide a suitable break and allow for a larger element to the rear



A perpendicular extension can allow for an increase in height from the existing dwelling.



Extensions should not merely be seen as "add-ons" to an existing dwelling.

Re-use, re-organise, re-place

5.4 Re-placement dwellings

Replacement dwellings can help to re-establish our rural communities by redeveloping long established buildings. Notwithstanding this, the importance of these vernacular buildings to the character of an area means that replacement should only be considered where it is clear that the building is not capable of being made structurally sound. Replacement opportunities are beneficial in that they are normally in close proximity to exiting infrastructure and will also benefit from established mature boundaries. Where it is planned to replace an existing dwelling, the house being replaced should clearly be recognised as a dwelling i.e. the external walls, roof and openings are relatively intact, and it must also have been last used as a dwelling.

The county of Roscommon contains a large variety of building types and forms. Most of these traditional buildings are relatively simple in their form. For a successful replacement dwelling, the form and shape of the building being replaced should be reflected. In some exceptional circumstances a replacement dwelling with a high quality design will be considered where it differs from the original vernacular on site. These projects should however still reflect the vernacular elements in the overall concept.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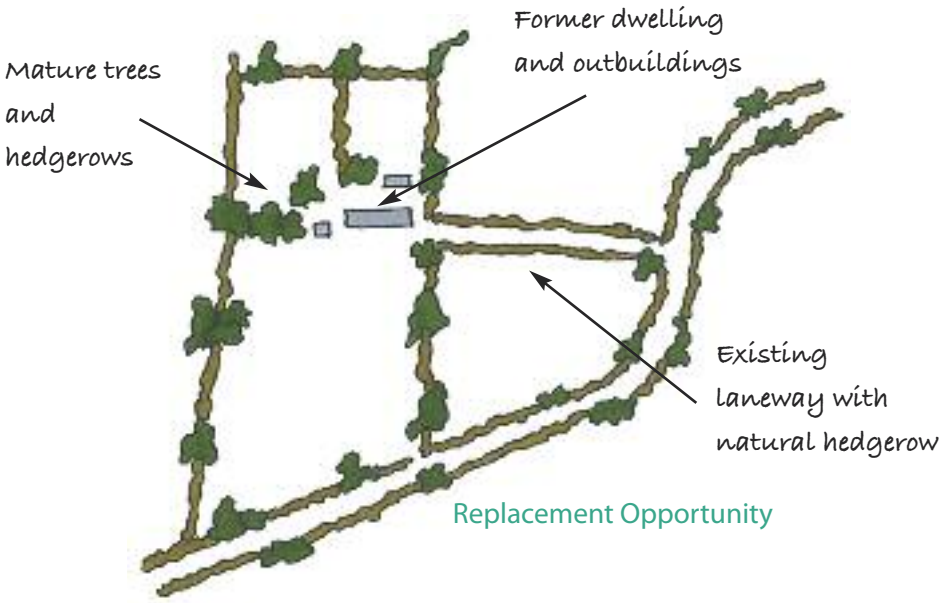
Replacement/Renovation opportunity for vernacular dwelling

Basic Rules for replacement dwellings:

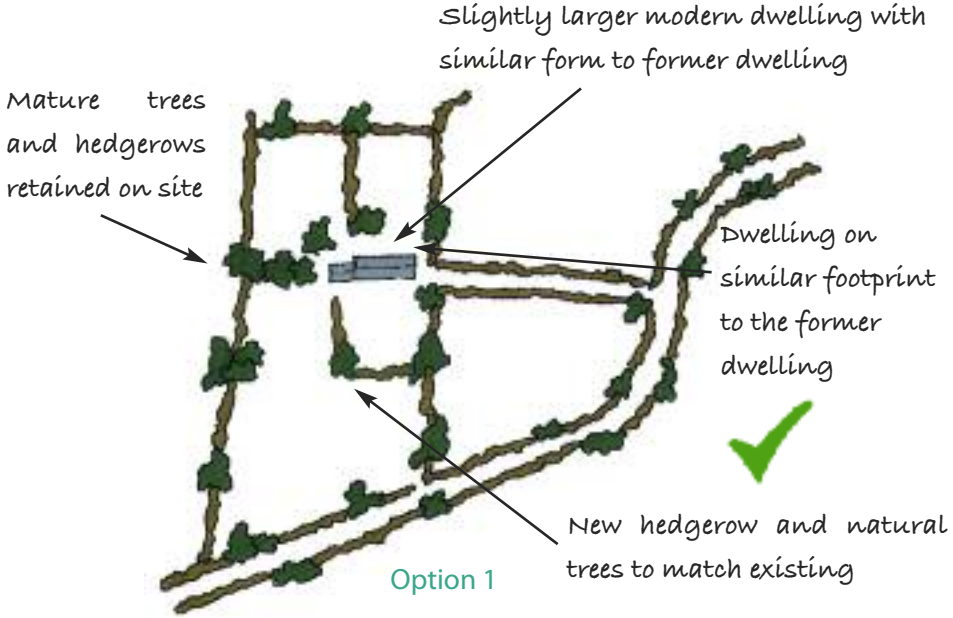
1) The replacement dwelling should be of a form and scale that fits into the existing site and integrates with the characteristics of the site.
2) The dwelling should be located as close to the existing footprint as possible unless there is a planning gain in terms of visual and functional integration.
3) Established characteristics on site such as mature hedgerows, trees site boundaries and access points should be retained as much as possible.
4) The replacement dwelling should incorporate materials from the former dwelling as much as possible. Traditional iron gates should be salvaged and reused where possible.

Re-use, re-organise, re-place

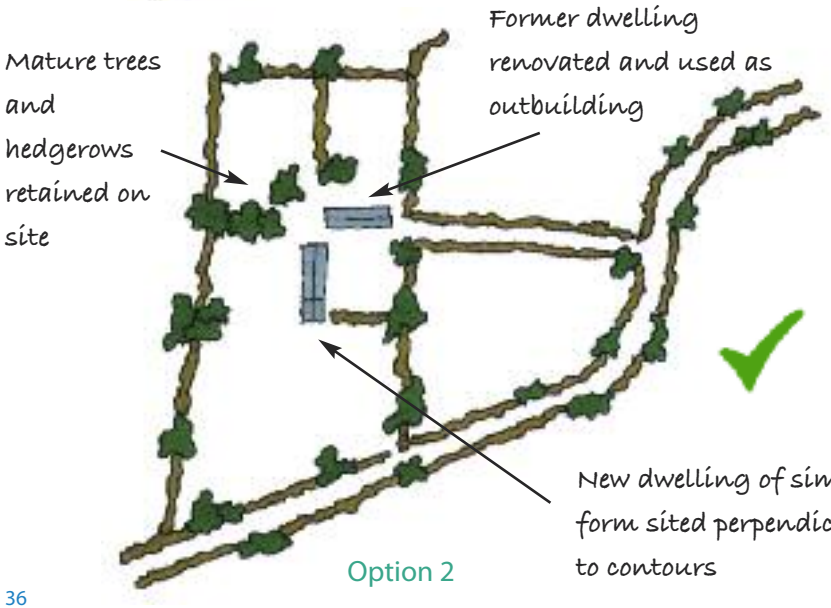
5.5 Options for replacement



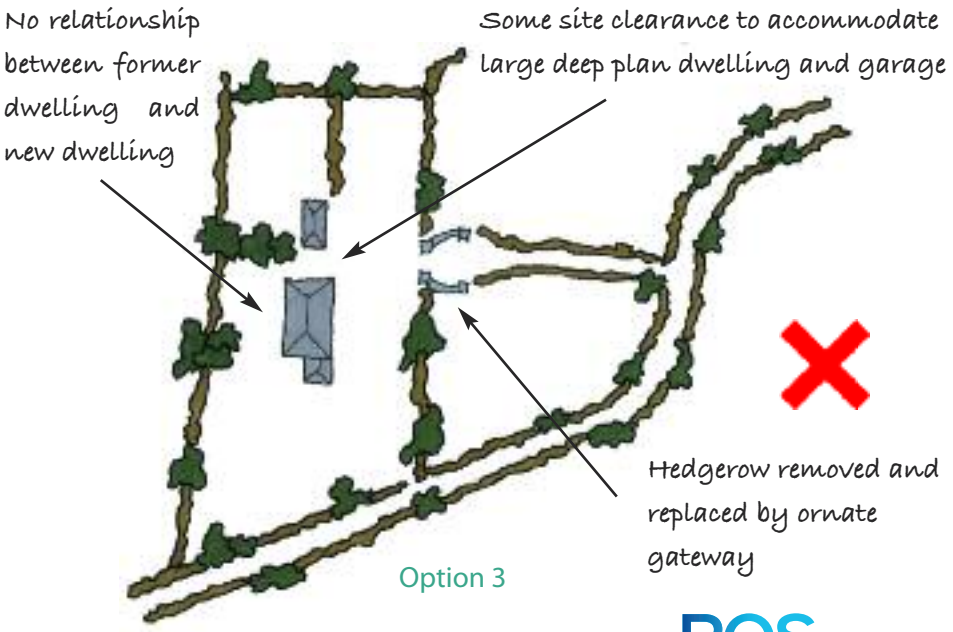
Replacement Opportunity



Option 1



Option 2



Option 3

Re-use, re-organise, re-place

5.6 Garages

Traditionally storage for dwellings was narrow in form and comprised of predominantly single storey barns and stables. Two storey barns were often used together with two storey dwellings and were of a high aesthetic quality. Where possible these elements should be retained on site and utilised as part of any design solution.

The siting of a garage can be used to break up the overall massing of the house. It could also provide for the provision of an enclosed courtyard effect to the front or to the rear of the dwelling.

Consideration of the size of the garage should be in direct proportion to the size of the house. Large scale steel and pre-cast concrete structures should be avoided. If there is a requirement for additional space for the dwelling this should be sought through the provision of a series of smaller blocks rather than a single large garage. Finally the siting of the garage should not dominate the front elevation of the house.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Traditional forms should be used as compared to 'industrial' style sheds

6. New Build

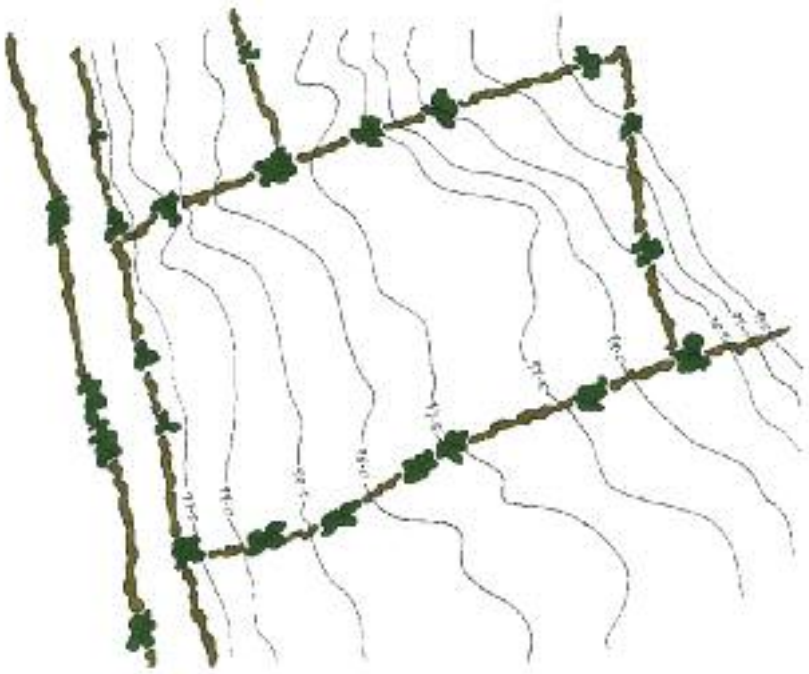
New Build

6.1 Designing the right house for the right site

We have seen in Section 4 the importance of site selection and locating the dwelling appropriately in the site. The key to designing a dwelling successfully is that the dwelling is designed for the site where it is to be built. It is important that designs are not just copied of other sites which the applicant may like for one reason or another. These dwellings may not suit the chosen site or indeed the individual needs of the applicant.

Before you start to think about a house type, it is important to study the character and physical attributes of the site. A site contour map (right) should be drawn up and any proposal on this site should have minimal intervention with landscape features. It is vital that you design a dwelling based on the sites features and not the other way around.

The following characteristics should be central to the design process.



What characteristics should be encouraged

Simple building form
Well proportioned
Sitting comfortably in the landscape
Maximise solar gain
Sheltered from the weather
Simple construction
Rooms where natural light streams in throughout the day
Little or no modelling on front plane of building
Modern but distinctively rural
Minimise areas of hard standing
A garden that is easy to manage
Quality of materials

What characteristics should be avoided

Complex building forms
Poorly proportioned elements
Poorly integrated buildings
Over elaborate elevations
Too big, full of empty rooms that are rarely used
Proliferation of white plastic (doors, windows, eaves and downpipes)
Suburban site treatment that is difficult to manage
No privacy or shelter in outdoor spaces
Large hard standing platforms
Addition of 'frills' and extra detailing
Solely reliant on fossil fuel heating system

6.2 Form follows Function

The theory that *form follows function* is a fundamental principle in architecture. Essentially it means that the form of a building is a direct result of the uses of the spaces within the building. Traditionally this lead to dwellings which were simple in shape with a scale determined by the site. It also meant well defined elevations with minimal protrusions with the bulk and scale of the dwelling broken down.

6.3 Rural Building Forms

Single storey


Cottage


'L' Form


'T' Form


Long House


'U' Form

Storey and half


No dormer


Single eave dormer

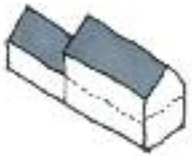

Double eaves dormer


Triple eaves dormer


Contemporary style eave dormer

Two Storey


Simple Two Storey


Long Two Storey


Long Two Storey and 'T'


Two Storey and 'L'


Two Storey slipped

Miscellaneous


Tatch


Tin Hayshed


Slate and tin lean-to


Front barn


Gable barn

These forms are for indicative purposes only and attempt to indicate appropriate rural forms. The characteristics shown should be applied to achieve a successful rural design solution.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Contemporary interpretations of rural typologies


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New Build

6.4 Suburban Building Forms

In recent years there has been a move towards large blocky house types with a deep plan form. The 'pattern-book' designs have also contributed to this trend and the result is a design which has no relationship with its site. While the vernacular typologies followed the *form follows function* principle, these recent trends are a reverse of this in that they are trying to squeeze the highest number of rooms into a rectangular shape without appreciating the function of these spaces.

Single storey

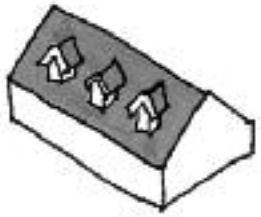
Deep plan bungalow

Gabled deep plan bungalow

Hipped bungalow

Twin gabled deep plan

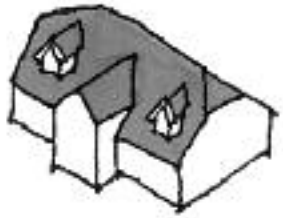
Storey and half



Common Dormer

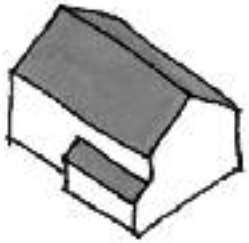
Half-hipped dormer

Gabled dormer

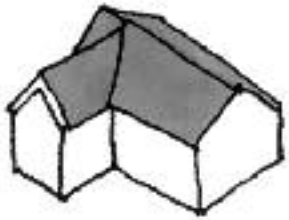


Half-hipped and gable add-on

Two Storey

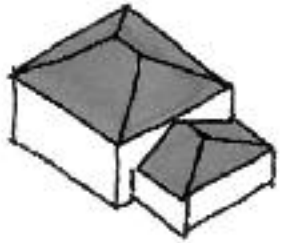


Suburban porch deep plan



Gable add-on

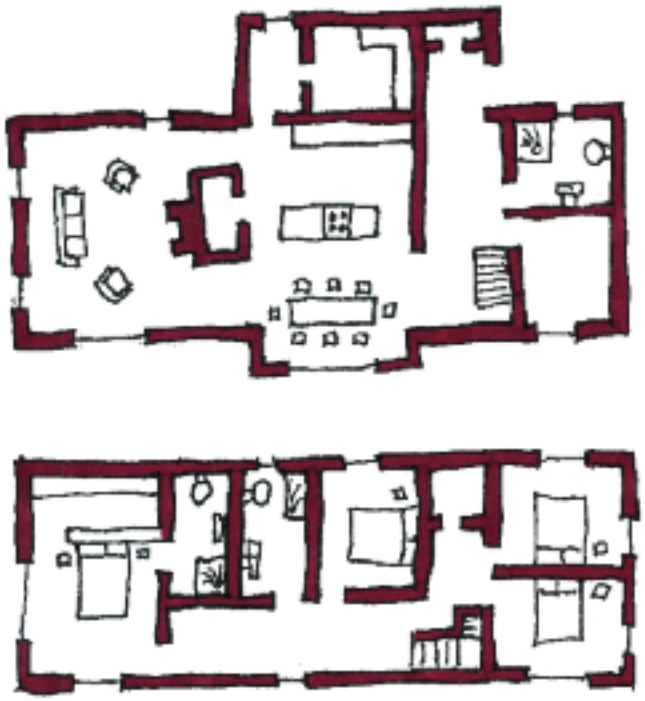
Deep plan with gable add-ons



Suburban hipped

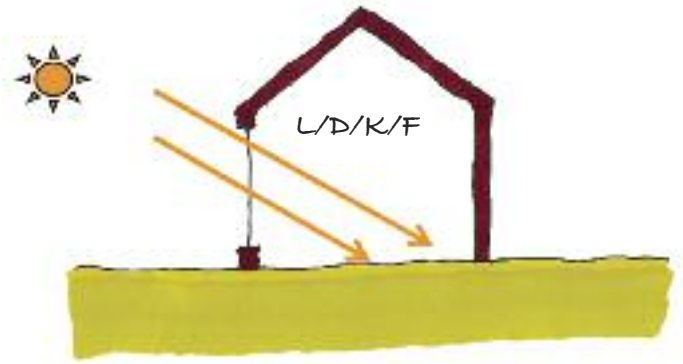
These forms are for indicative purposes only and attempt to indicate forms which are not appropriate in a rural setting. The characteristics shown should be avoided in rural design.

6.5 The narrow plan approach



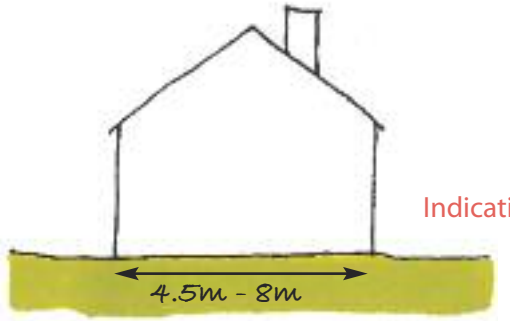
Contemporary narrow plan approach

The narrow plan concept forms part of the vernacular approach to house design. It has many advantages and avoids many of the common problems associated with a deep plan form.



The narrow plan dwelling can also benefit from solar gain which can reduce heating/energy bills by as much as 30%. This form also allows for dual aspect rooms in that light comes from two different directions throughout the day.

A narrow plan dwelling can be sited either perpendicular or parallel to a slope which avoids excessive cut and fill and reduces costs in terms of site works.

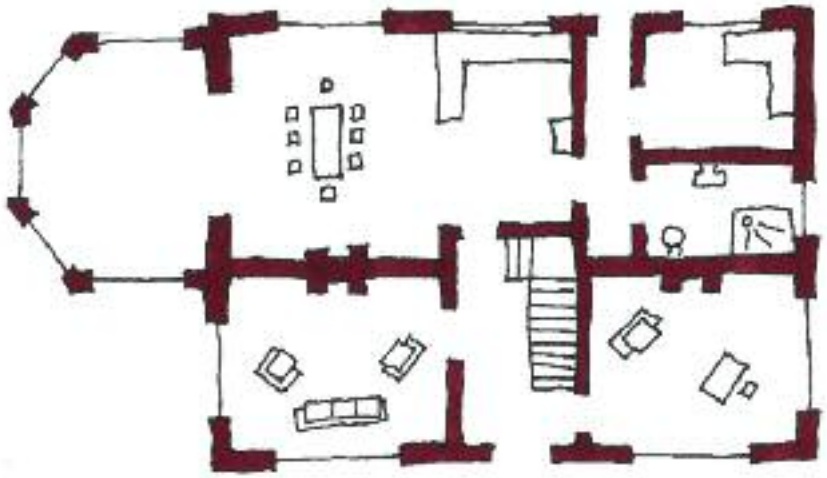


Indicative narrow plan width

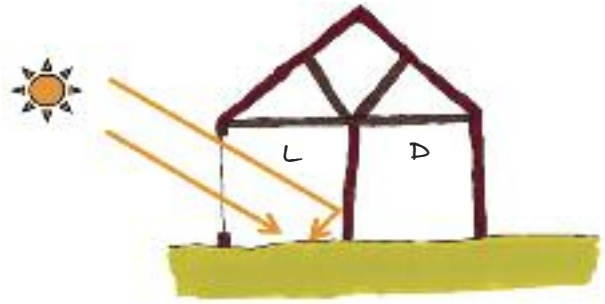
New Build

6.6 Avoiding the deep plan solution

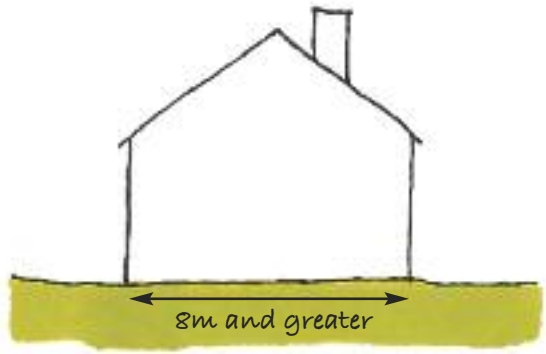
The deep plan form has become the most common approach in designing new dwellings. It arises as a result of trying to maximise the number of rooms under one large roof. Normally this is expressed as four main rooms at ground level with the first floor arranged in varying formats that are primarily two room deep. When the basic form of the dwelling follows this pattern, it often leads to the addition of design features in an effort to break up the bulk of the dwelling which leads to cluttered elevations with inappropriate add-on features.



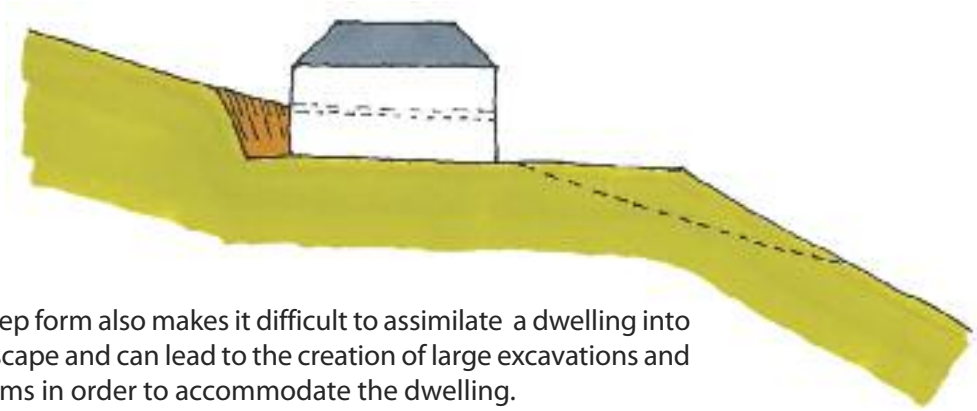
Generic deep plan approach (ground floor)



The deep plan form does not allow for efficient solar gain as 50% of the dwelling does not benefit from solar paths. This has a significant cost implication to the occupant as energy and lighting bills are increased because all the rooms in the dwelling cannot benefit from the sun's rays and natural light is limited throughout the day.



Indicative deep plan width



The deep form also makes it difficult to assimilate a dwelling into a landscape and can lead to the creation of large excavations and platforms in order to accommodate the dwelling.

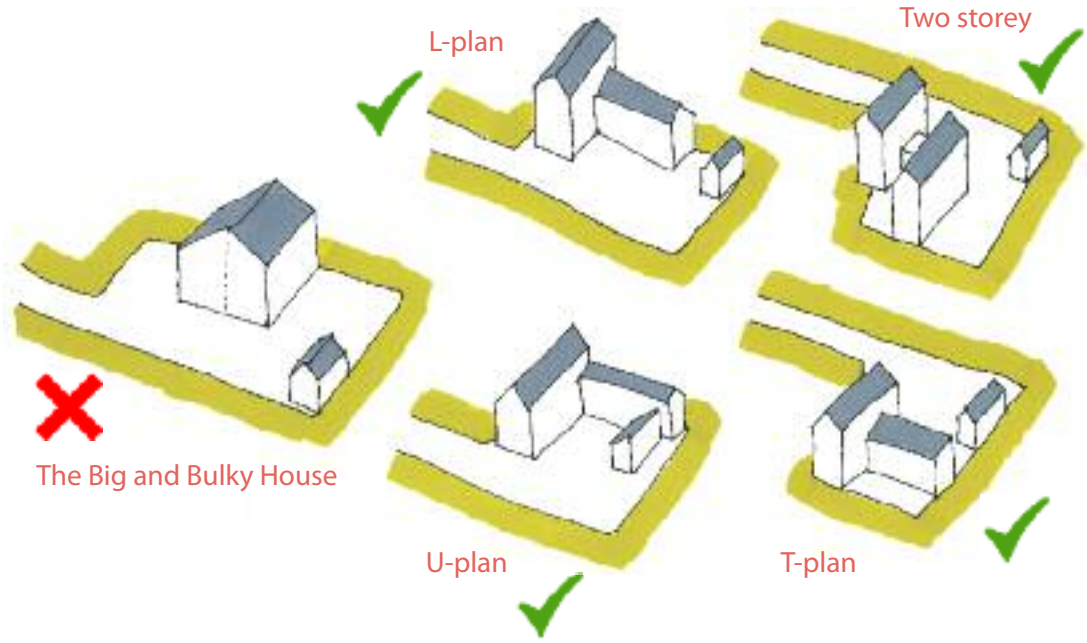
6.7 Massing

Massing describes how we assemble the living space of the house and how these spaces relate to each other within the overall composition. Design solutions which appear very deep, wide and high give the overall appearance of a large scale and bulky appearance which will have difficulty in assimilating into their surroundings. Deep plan houses which are typically two rooms deep and in excess of 8 metres in depth have become a common design solution due to their cost efficiencies during the construction phase. This design solution is however not a feature of Roscommon's rural housing tradition which was generally one room deep, and allowed for better scale, proportions and heights which related more to the human scale.

6.8 The problem with the "Big House"

Massing is about how you assemble the formal elements of the house and how these proportions relate to each other and to the overall composition. The issues relating to the big house type are generally ones of bulk, scale and height as they are all factors which determine the overall massing. The big house has deep plans, wide gables and excessive heights, resulting in a large scaled and bulky house which cannot be assimilated into the rural countryside and appears 'landed' onto the site. The solution lies in utilising more slimmer and narrow plan forms, which can be assembled into better compositions with proportions and scale that reflect their rural context.

6.9 Addressing the problem



These indicative sketches show how best to address the problem. The floor area is the same in each of the sketches and it shows how it is possible to achieve the same floor area having a less bulky house.

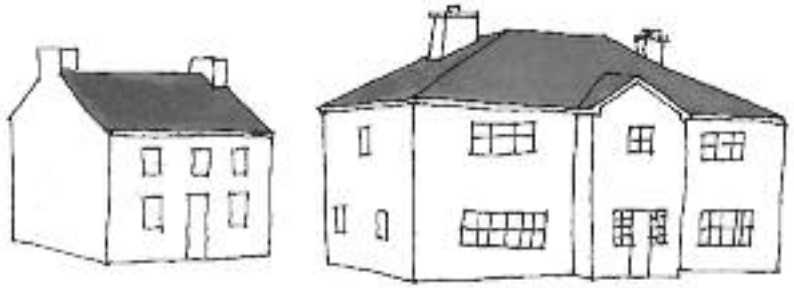
Current design trends are characterised by their deep floor plans which results in excessively wide gables and an over-sized appearance. The success of any design solution is to use the narrow plan typology which can be assembled into varying elements and gives greater flexibility in terms of layout and future expansion. Many design issues can be resolved by simply reducing the bulk of the overall structure. Successful rural design comes from breaking down the bulk to a more sympathetic massing and proportion.

While traditional forms are preferable, contemporary architecture can also provide creative alternatives to deep plan forms. A high quality contemporary dwelling can assimilate into a landscape if designed properly to reflect its context and be sympathetic to the human scale.

New Build

6.10 Scale and Height

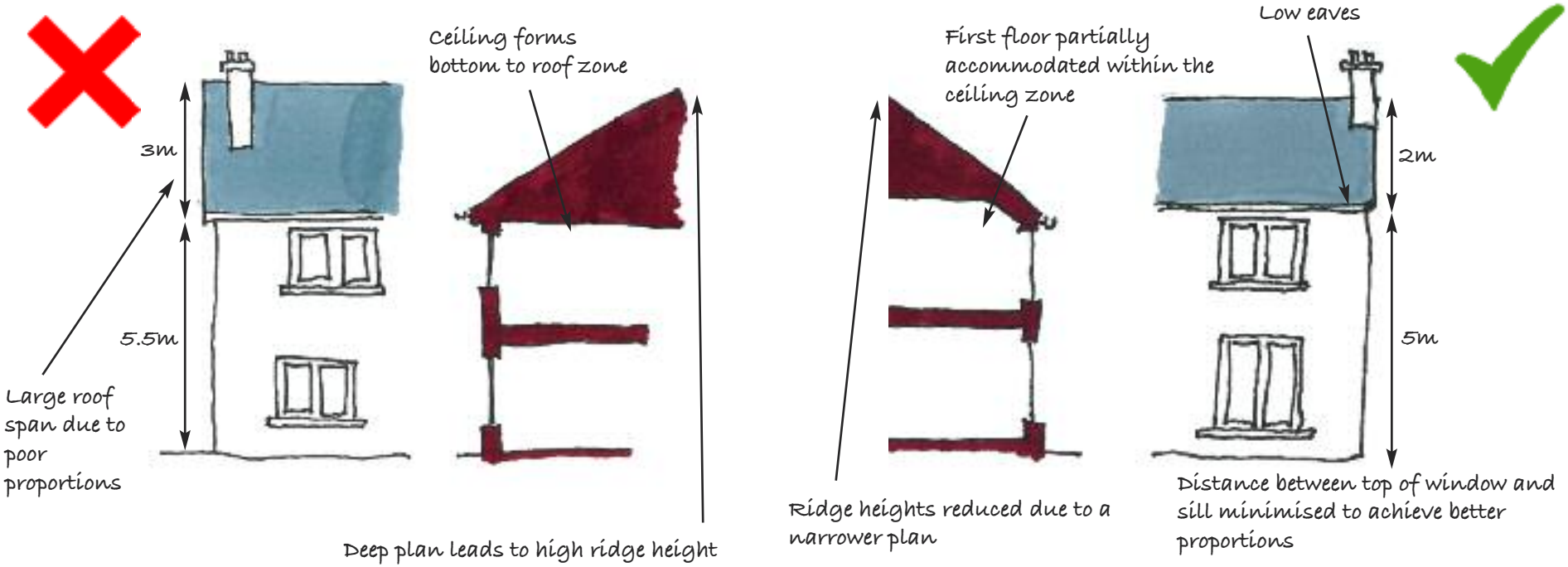
Traditionally houses were designed around their human scale. Building heights and openings were relative to the size of a person which gave the structures a pleasant style. Recent trends in house building have meant that more and more dwellings are being built 'out of scale' with their occupants and their landscape. A building's size is a key element of design and as a rule of thumb, the larger the dwelling the greater its impact. Large houses require large sites which are set in appropriate landscapes. These large houses should be broken down into smaller elements so as to limit their impact.



Traditional scale as compared to a more recent typology

In determining the appropriate scale, the existing natural screening, field boundaries, topography and vernacular architecture should all be taken into consideration. The size of the dwelling should relate to the size of the site and utilize the natural contours of the landscape to help assimilate the dwelling.

In terms of height, it should be remembered that the deeper the plan of the dwelling, the wider the gable and subsequently the higher the overall ridge height of the dwelling. House designers should pay particular attention to this when working on a design solution.



6.11 The Design Process

A design should consider every aspect of a building and its setting to achieve an outcome the responds to the needs of the individual while integrating into the landscape. This process should be followed as compared to picking a design from a 'pattern book' of house types and trying to fit this design into the site.

Stage 1:
Define the brief

It is important to decide what you need and what you don't as this will inform your architect / designer what you require. A good brief will take time and is a two-way process which discusses the needs of the individual and is shaped by the guidance and expertise of the designer.

Stage 2:
Assess the site

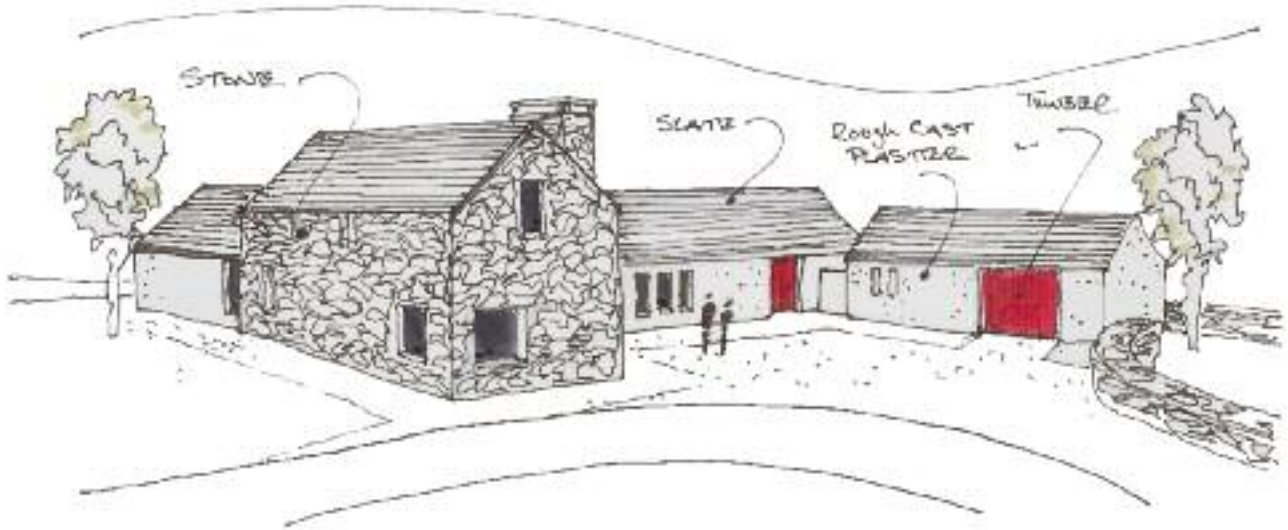
The following should be looked at in relation to the site:

- What are the characteristics of the site?
- Are there features that should be retained or incorporated in the design?
- Is there a good view? How can the rooms and/or the dwelling be orientated to take advantage without losing the benefits of solar gain?
- Are there potential negative impacts on neighbouring properties?
- Are there viewpoints external to the site where the proposal will be obvious in the landscape?
- What will the design affect the skyline?

Stage 3:
Produce a concept

A design concept will bring together all the individuals requirements and assessments carried out and will help to arrange the buildings on the site. This will show how the buildings will look on the ground.

The production of a good design concept will form the basis for the preparation of detailed drawings to be submitted with a planning application.

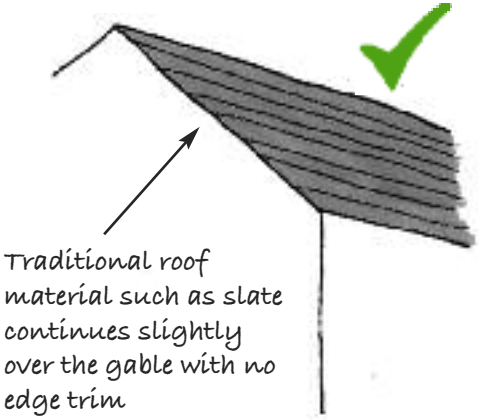


7. Adding the detail

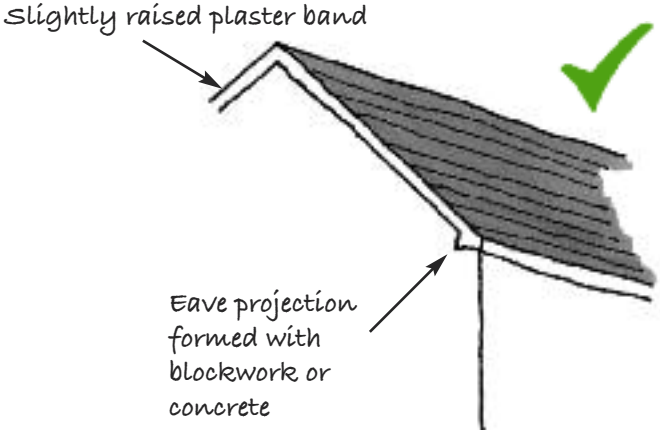
Adding the detail

7.1 Roof Style

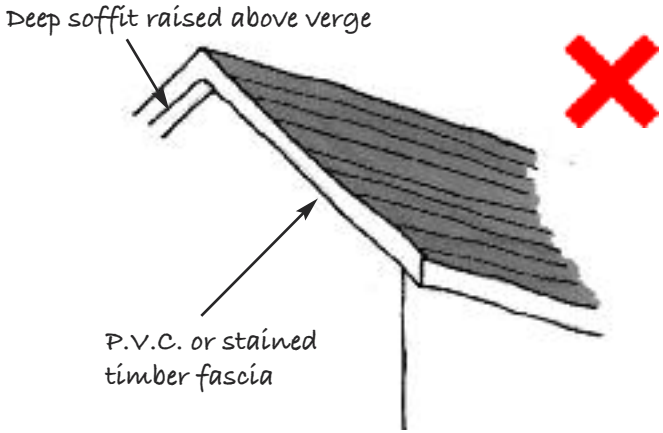
Traditionally roofs in rural Ireland had gable ends, had a pitch of around 35-40° and were made of local slate or thatch. Nowadays through the availability of alternative roof coverings there is the demand for different shaped roof designs. House types that require excessive roof heights and proportions should be avoided.



Simple edged roof with minimal eaves



Slight projecting eave and verge



Roof with large 'oversail'

7.2 Dormer windows

Over the years dormer roof lights have become a dominant feature in single storey dwellings. This stems from utilizing the attic space for extra accommodation and results in excessive roof spans from deep plan forms. Depending on the location and design of the dwelling it may be more suitable to use a storey and a half type dwelling with traditional eave dormers. Care should still be taken regarding the construction and detailing of the dormers.

Mid-roof dormer

Mid-roof dormers should be avoided as they lead to cluttered roof planes. The use of PVC cladding, box fascias and soffits should also be avoided.

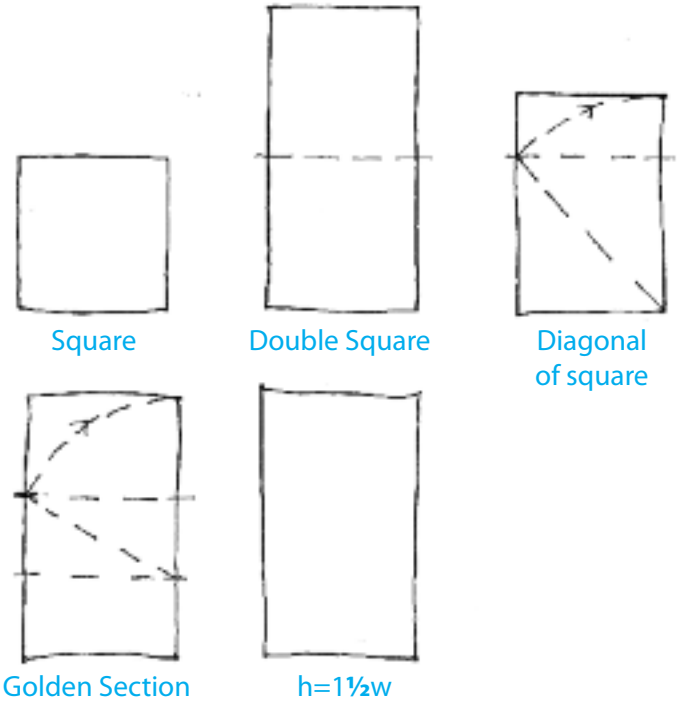
When using eave dormers, it is also important to remember the location and frequency of rainwater downpipes. A proliferation of rainwater downpipes should be avoided on the front of a dwelling.

Traditional eave dormer

Adding the detail

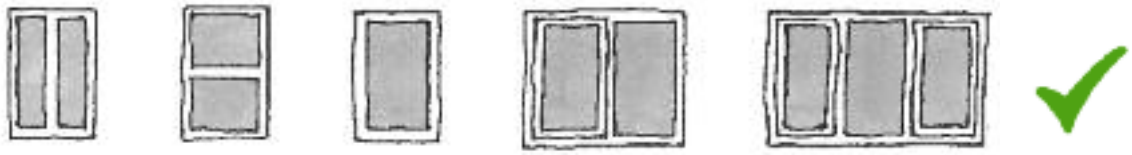
7.3 Windows

In the past, size and shapes of windows were limited by construction materials and costs, which meant that windows openings tended to be small and away from corners. Consequently openings were surrounded by large areas of solid wall creating what is known as a high solid to void relationship, giving a sturdy appearance to rural buildings. Today by virtue of improved building materials and cost reductions these constraints have been reduced. Current practice therefore tends to lean towards an increasing selection of larger, wider windows in a variety of shapes which often tend to look at odds with the simpler rural style.



Traditional window proportions

Traditional houses almost universally had windows with consistent and satisfactory proportions. Generally traditional windows were narrow and had a vertical emphasis and this design feature provides a good reference for a modern house. To achieve vertical emphasis the overall height of the window should generally be greater than, but never less than its overall width, the subdivision of a square window with a glazing bar will achieve vertical emphasis. A feature window whose overall width is greater than its height and that is divided by visually strong vertical members may be acceptable provided that the balance of the windows on the elevation have a vertical emphasis.



Windows which are symmetrical along the vertical or horizontal axis are more appropriate. Where wide windows are being used a strong vertical divides with panes of equal size should be used to retain the vertical emphasis.

Designs which avoid symmetry on the vertical or horizontal axis and unequal pane sizes should be avoided. Design features such as mock Georgian and Tudor panes should not be used.

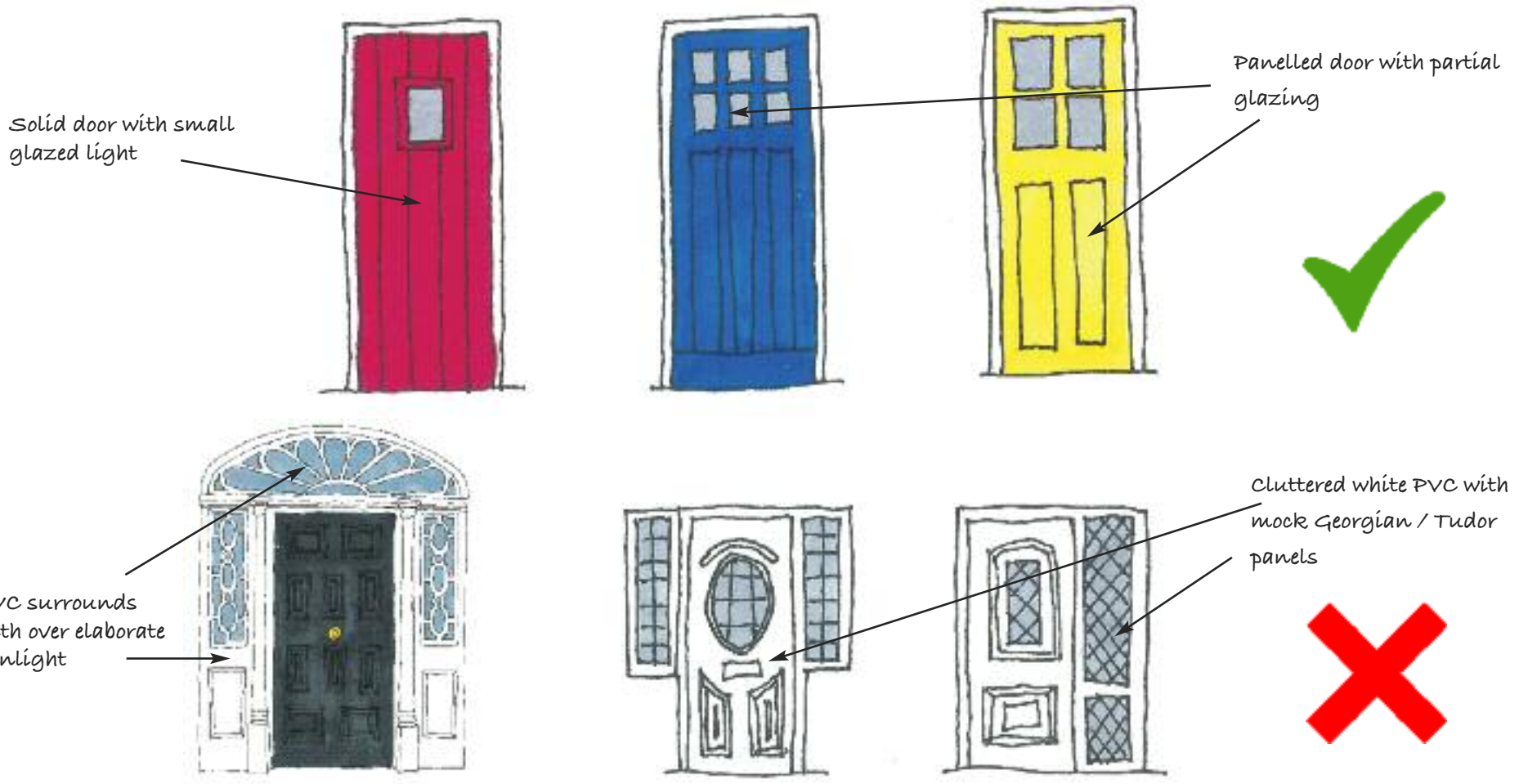
7.4 Bay Windows

While not a traditional feature in rural houses, they are acceptable in a modern context when used appropriately. They should only be used on the ground floor but should not add undue emphases to the window feature itself. The feature should not be seen as merely and 'add-on' but be worked into the roof design.

Adding the detail

7.5 Doors

The design of the door should be simple and avoid a clutter of detail and it should be located so that it reflects the positions of other openings. The doorway as a whole should be simple and not dominate the facade and should be made from sheeted or panelled timber. Materials such as white PVC, aluminium or varnished tropical hardwood are discouraged. The requirement to admit light to the hallway is acknowledged however large glazed panels in doors can look elaborate; a window above or beside a door is often a solution.

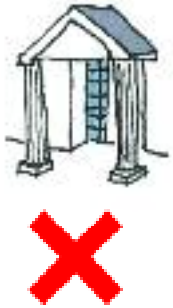


Adding the detail

7.6 Porches

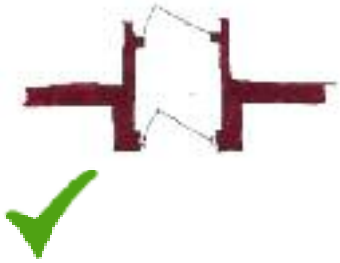
Porches should be carefully detailed and built with good quality materials while their shape and size should be well proportioned. The design should be solid in appearance and treated as solid blockwork and part of the house – the use of Greek columns, or fake PVC classical type porches should be avoided. The traditional practice of internalizing the porch within the house should also be considered at the design stage. While the preference for porches is the traditional solid design, it is possible to achieve a contemporary alterative with the appropriate design.

Simple porch form and detail



Fake Classical columns

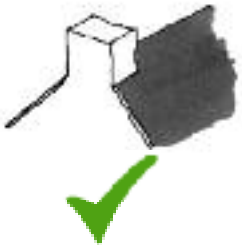
Internalised porch



Partially internalised porch

7.7 Chimneys

Chimneys are important elements of house design and inappropriate chimney design can affect the entire design. Chimneys should be located at or as near as possible to the ridge line and be robust in their style. Chimneys placed in the middle of a roof plane lead to tall, thin 'spindles' which detract from the overall dwelling as well as proving difficult for on-going maintenance.



Adding the detail

7.8 Materials

Traditionally dwellings were built with stone or clay walls and almost always had lime washed or painted plaster finish. This was to provide a protection to the inclement weather that the buildings were required to withstand. Rough cast render was applied to rubble walled buildings for the same reasoning. A recent trend of removing the render finish to expose the stone elements has emerged which reduces the ability of the building to resist water penetration. It also removes the vernacular elements and exposes elements such as stone and brick which did not form part of the traditional house finish.

The number of materials used should be limited and materials that have a tradition of use in the area, or that are indicative of the area, should be used. A clear simple design creates a more harmonious composition. Add on frills and bands with no obvious structural logic or necessity should be avoided. In addition, the introduction of brick window surrounds, artificial stone cladding and brick quoin details are add on and frills that merely make the overall form fussy and complicated and should be avoided.

Design Feature / Detail	Preferred Materials	Try to Avoid
External Walls of dwellings, Domestic Garages Extensions	Local Stone (sandstone/limestone - area specific). Local Stone can be worked to a fine ashlar finish or a less formal natural rubble finish. Render such as stucco, traditional lime render or lime wash, rough cast render or napped render finish, glass. Metal cladding such as copper, timber shingle, self finished modern renders, and painted timber finish may be acceptable in some instances or in cases where the design solution calls for an accent material. Pebble dash using sand and cement mix for local stone/pebbles	Stone cladding which clearly reads as non structural. Non Local Stone or dashes using brightly coloured non local stone Cladding and other metal or timber finishes which give an engineered or artificial appearance.
Roof	Natural slate Thatch Durable timber shingles Metals such as Zinc and Lead and Copper (must be carefully considered, complement the overall design and be skillfully executed) Earthen/sod	Poorly weathering materials such as fibre cement slates, concrete tiles (particularly those of lighter colour). Cladding and other metal or timber finishes which give an engineered or artificial appearance.
Window surrounds and Doors	Timber (either painted or unpainted and treated).	Light coloured or poorly weathering materials.
Fascia, Soffits & Rainwater Goods	Dark coloured materials, preferably black or dark grey, rainwater goods, facias and soffits.	Light coloured or poorly weathering materials.
Cills	Stone or concrete.	Finishes which give an excessively engineered or artificial appearance.

Adding the detail

7.9 Stone

Traditionally where stone is used it was generally to a high degree of finish such as ashlar on "grand" structures such as churches, banks and courthouses, or in the form of more coarse masonry on structures such as outbuildings, barns and mills. The use of exposed stone on domestic buildings was not common. When stone is being used as a finish, it is preferable to use stone which is locally available. In Roscommon this is predominantly Limestone, while there are outcrops of Sandstone in areas around Boyle, Ballaghaderreen and Cloonfad. This type of local stone is a particularly appropriate building material where stone is a predominant landscape feature within the locality. It's use in new buildings can assist in assimilating it in the area and rooting it in the landscape.

The use of brick and artificial stone cladding are unsuited to most rural areas and their use will only be accepted as part of a high quality design solution.

The use of local stone can assimilate a dwelling in an area and root it in the landscape

Examples of appropriate contemporary materials

8. Sustainable Design

Sustainable Design

8.1 Energy Efficiency

With the increasing cost of energy, energy efficiency and sustainability should be considered at an early stage of the design process. One of the simplest and indeed cost effective ways to reduce energy costs is to select a site that is low lying and well screened. Time should be taken to consider the orientation of the site and how a design can work with the path of the sun and the prevailing winds. If a site is elevated and exposed to the winds, any proposal to install energy efficient technologies will be counterproductive.

As well as siting and orientation, it is also possible to reduce energy consumption by effective design such as retaining a compact form, minimising window openings to the north and using the south elevation for larger openings. Design elements such as dormers and bay windows should be kept to a minimum as they increase the heat loss and are difficult to insulate these projections effectively. Energy efficient glazing and extra insulation can also help to reduce energy consumption. It is also important to remember that the larger the dwelling, the more heating required. A smaller dwelling can offer a more comfortable living environment and a good design will more than make up for the lack of overall floor area.

8.2 Renewable energy sources

Renewable energy resources are abundantly available through the county. Technologies such as solar panels, air to water heat pumps, wind turbines, geothermal heat and wood pellet burners should be utilised as much as possible. These technologies offer sustainable alternatives to fossil fuels such as coal, oil, natural gas and peat (turf). By increasing the use of renewable energy sources there is a knock on effect of reducing greenhouse emissions and reduces the reliance on imported fuels.

8.3 Retrofit

Our existing housing stock poses a great energy efficiency challenge. A considerable portion of the current housing stock performs well below buildings which are built to the current standards. The Sustainable Energy Authority of Ireland (SEAI) offer many programmes that aim to develop technical and financial solutions to a range of building types. Programmes such as *Warmer Homes Scheme, Better Energy Homes* and *Better Energy Communities Scheme* provide a range of supports to retrofit buildings.

8.4 Building Energy Rating (BER)

Similar to an energy label, a Building Energy Rating (BER) Certificate is an indication of the energy performance of a home. A BER is compulsory for all homes offered for sale or rent. A BER is also required before a new home is occupied for the first time. There are exemptions for certain categories of homes, for example, protected structures. BER is the calculated energy use for space and hot water heating, ventilation and lighting based on standard occupancy. The label has a scale of A-G. A-rated homes are the most energy efficient and will tend to have the lowest energy bills. BER's should be carried out by specially trained BER assessors who are registered by the SEAI.

For more information on BER, renewable technologies and the various retrofit programmes see the SEAI website: www.seai.ie.

8.5 Building Regulations

Established by the Building Control Act, the Building Regulations set out the technical requirements for the design and construction of a new building, including a dwelling. Considerable attention should be paid to the Building Regulations at the initial planning stages and it is important to remember that a grant of Planning Permission does not necessarily mean that the Building Regulations have been complied with.

For a 200 m^2 dwellinghouse, the estimated annual fuel costs are shown to the left. These costs are based on a typical occupancy and heating of the house to a comfortable level (Source: SEAI).

Acknowledgments

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Roscommon County Council wish to thank everyone associated with the production of these guidelines and in particular those who gave permission for the use and reproduction of photographs.

Written and Designed by: Pio Byrnes, Forward Planning Unit, Roscommon County Council.

Sketches, illustrations and photographs (unless otherwise noted) by Pio Byrnes. The concept sketch on page 49 is courtesy of Emmet Humphreys, Senior Executive Architect, Roscommon County Council.

Cover: The cover of these guidelines is a reproduction of an original painting by artist Alan Leyland, entitled Old Hedge. It depicts a typical landscape within County Roscommon. The sketch of the dwelling is superimposed on the painting and depicts an example of a contemporary type dwelling.

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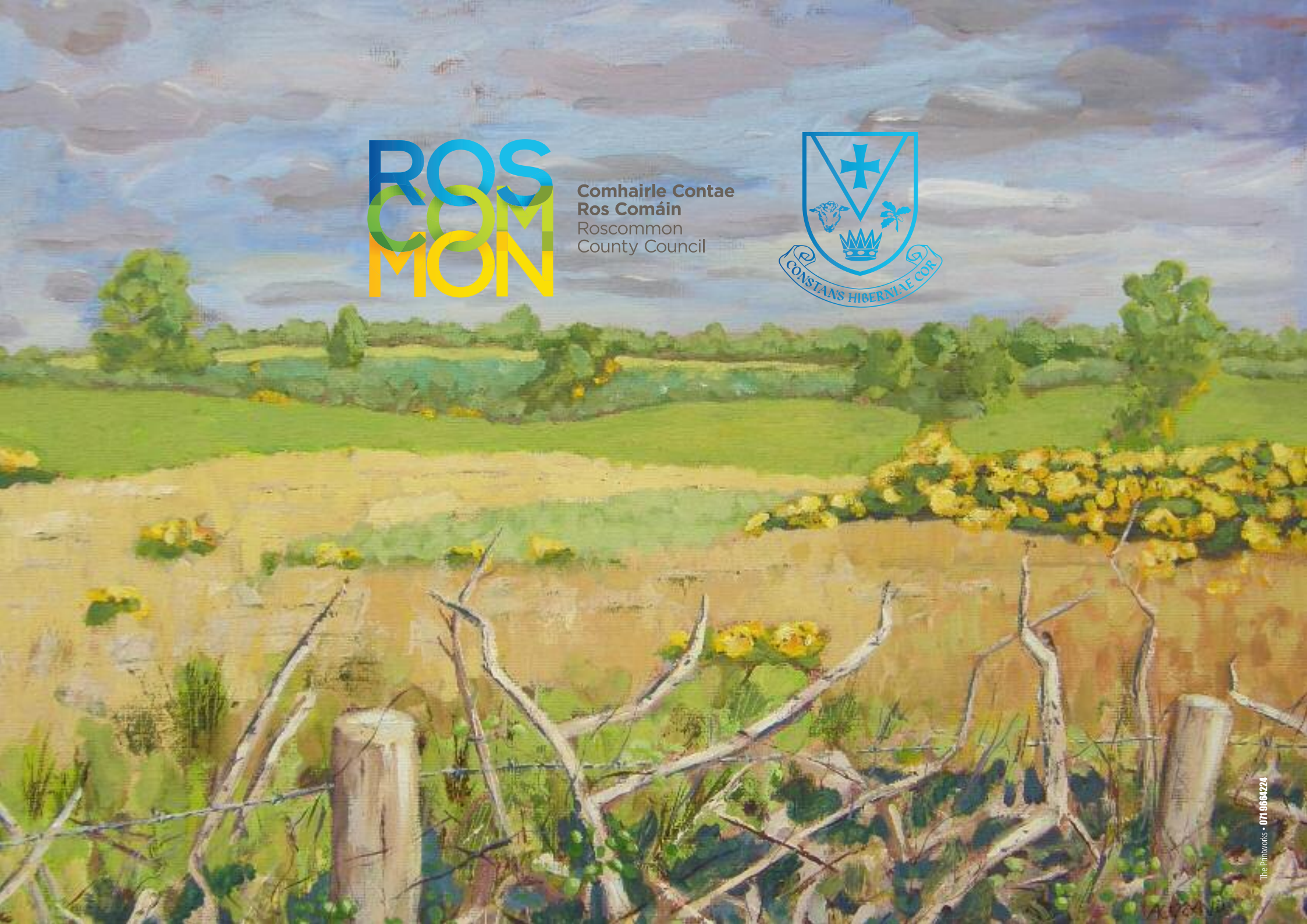

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