



Comhairle Contae Mhaigh Eo
Mayo County Council

VOLUME 4

Supporting Documentation

Mayo Rural Housing Design Guidelines



VOLUME 4
SUPPORTING DOCUMENTATION





MAYO RURAL HOUSING DESIGN GUIDELINES 2008
MAYO COUNTY COUNCIL



REASONS FOR THIS GUIDE

TO REMOVE UNCERTAINTY AND IMPROVE THE EFFECTIVENESS OF
THE PLANNING PROCESS

TO RESPOND TO CONTINUOUS REQUESTS FOR CLARITY

TO ENCOURAGE THE USE OF TRADITIONAL FORMS, SCALE AND MATERIALS THAT HAVE A
PROVEN HISTORY OF BLENDING INTO THE MAYO LANDSCAPE

TO PROTECT MAYO'S MAGNIFICENT LANDSCAPE AND NATURAL HERITAGE

TO PROMOTE ENVIRONMENTAL SUSTAINABILITY

TO PROMOTE BIODIVERSITY AND THE PRESERVATION OF HEDGEROWS

TO STRENGTHEN OUR CULTURAL AND SOCIAL HERITAGE

TO COUNTERACT CURRENT TRENDS TOWARDS SUBURBAN TYPE DESIGN, PROMINENT
SITING AND UNSUITABLE FINISHES.

C O N T E N T S

1.0	Site Selection & House Siting
2.0	Road Setback & Site Entrance
3.0	House Form
4.0	House Construction & Detail
5.0	Materials
6.0	Environmental Sustainability
7.0	Building Regulations.
8.0	Making An Application.

1.0 SITE SELECTION & HOUSE SITING

The aim of this guidance is to provide clear recommendations when selecting a site and carefully positioning a house within the landscape in order to protect, enhance and conserve our natural environment that it may be enjoyed by all persons and future generations to come.

1.1 SITE SELECTION & HOUSE SITING

SECTION 1.1

Select your Site & Locate your house to:

Maximise solar heat & light gain to living areas *ie.* face Southwards.

Maximise wind shelter from topography & trees.

Minimise the visual impact of the building on the landscape. Position the house amongst hills and ridges as opposed to landing the house on top of such landscape features.

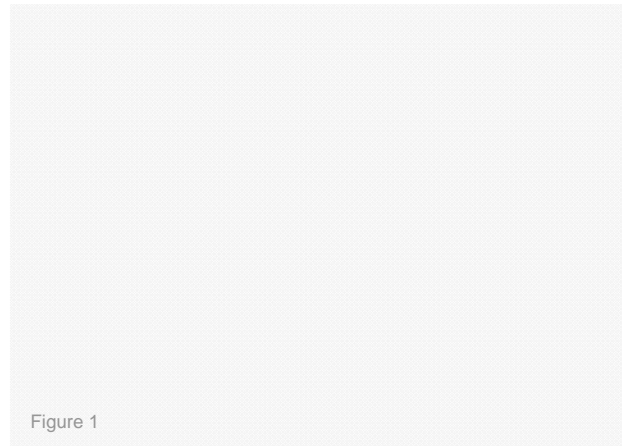


Figure 1

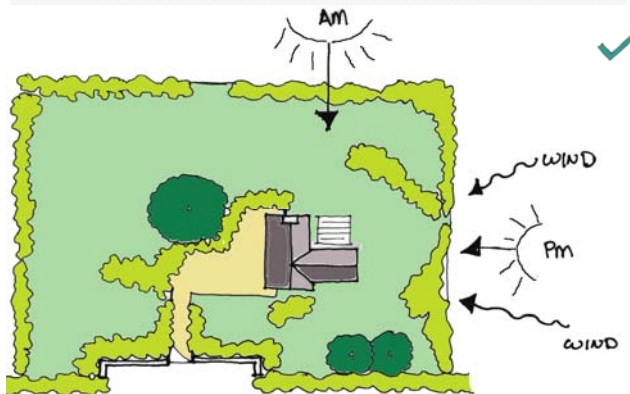


Figure 2

Care should be taken in hilly/mountainous areas when choosing a site. Siting a house in a high location may only serve to diminish the visual attractions offered by the varied and unique landscape of Mayo.

Avoid loss of existing mature trees, hedgerows and stone walls on site. In addition to the aesthetic qualities offered by existing mature planting, trees and stone walls should always be retained to create shelter & privacy.



LOCATE HOUSE FOR SHELTER, PRIVACY AND TO MINIMISE VISUAL IMPACT

1.2 SITE SELECTION & HOUSE SITING

Avoid:

Imposing the house on the landscape. The house should be designed to become part of it, and should sit neatly into the existing contours and not located at the highest point.

Blocking of, or intrusion into scenic views.

Breaking the Skyline.

Unnecessary site excavation or site filling.

Unnecessary exposure to prevailing winds.

Automatically facing onto the nearest road, consider shelter, orientation and topography as guidelines to siting.

Large volumes with excessive roof spans. The house should be broken down into smaller forms to reduce visible volume & height.

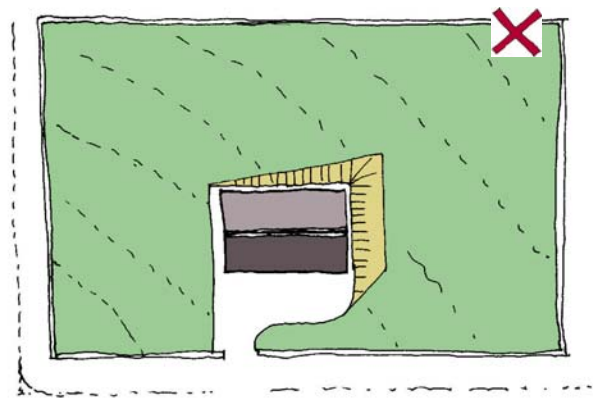
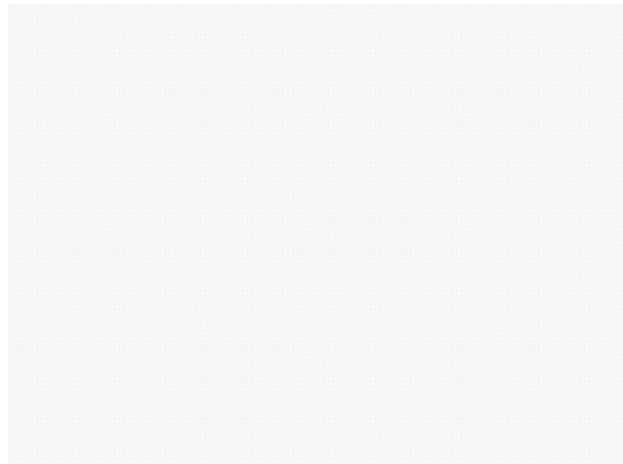


Figure 3

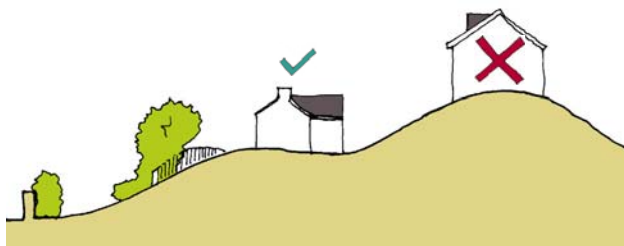


Figure 4

1.3 SITE SELECTION & HOUSE SITING

Position your house to:

Use surrounding topography for shelter.

Allow the visible massing of house to be reduced.

Minimise the visual impact of the house on the landscape.

Provide house & garden areas that are secluded and private in a natural landscape.

Prevent unnecessary destruction of mature planting and stone walls already on the site.

Use natural, existing backdrop of trees to provide a shelter belt.

Maximise on solar heat and light gain into the main living areas of the house.

Garden Planting:

Plant wind shelterbelts to windward side of house (thus reducing heating bills).

Plant to reduce visual impact of building and harmonise house in landscape.

Reflect the indigenous natural planting of the area.

Avoid:

Suburban type non-indigenous hedgerows, plants and trees.

Formal arrangement of plants.

Floodlighting and ornate suburban style garden lighting.



Figure 5



Figure 6



Figure 7

2.0 ROAD SETBACK & SITE ENTRANCE

The aim of this guidance is to provide clear recommendations when designing and selecting a site entrance in order to protect, enhance and restore our natural hedgerows, along lanes and roads so that our wildlife and the safety of all road users can be sustained.

2.1 ROAD SETBACK & SITE ENTRANCE

Site Entrance:

Locate your Site Entrance to:

Maximise road visibility yet –

Minimise necessary width of road set back.

Minimise removal of existing hedgerow and stone walls. Do not exceed maximum set back of 3.0 metres.

(See set-back width calculation guidelines)

Set-back area each side of gateway shall be planted with grass.

Entrance gate set back by a further 2.0 metres with the boundary wall splayed 45 degrees.

Where it is known that an adjacent site may be developed in the future—site entrances should be located to one side. This will reduce the length of road set back required and consequently the amount of older hedge row or stone lost.

Avoid:

Unnecessarily wide road set backs.

Unnecessary removal or original hedgerows, trees and stone walls.

'Crazy Paving' type stone cladding in lieu of dry stone walling.

Elaborate gate posts and gates.

Non-indigenous hedge species.

Road Set-Back Ground Finish:

Provide quality grey or brown pea gravel finish.

Avoid:

Tarmacadam, hardcore or maintenance stone ground finish.

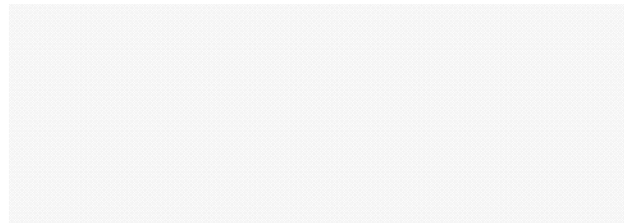


Figure 8

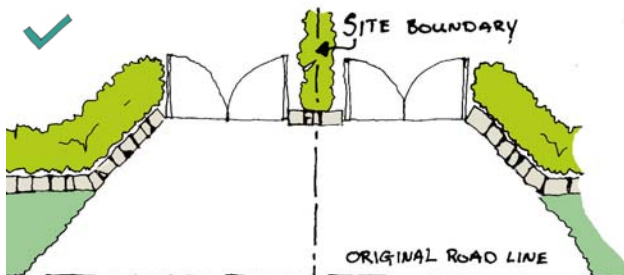


Figure 9

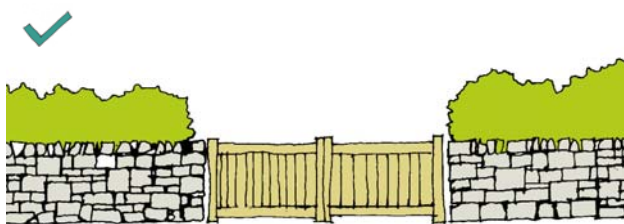


Figure 10



Figure 11

2.2 ROAD SETBACK & SITE ENTRANCE

Set Back Boundary Treatment

Match adjacent older traditional road boundaries;

Walls to be no higher than 1.2 metres.

Stone walls to be 'Dry' (without visible mortar), of style, stone type and height typical to the older walls of the area. Reuse any stone removed from original walls.

Smooth plastered low blockwork walls permitted only if typical to area.

Alternatively combine a 600mm stone wall with a hedgerow behind.

Replant indigenous (see guidelines) hedgerow behind boundary wall.

No obstructions such as utility poles, flower pots, large stones or bollards shall be located within 1.5 metres of the road.

Planting generally:

Where an original hedgerow has been lost due to the required road set back, a new hedgerow should be replanted behind the new boundary wall.

New hedging should consist of indigenous hedgerow species, those seen locally in the area will probably thrive best.

Young plants should be spaced approximately 30—45cm apart in 2—3 staggered rows approximately 30—45cm behind the boundary wall. A variety of plant species in your hedge will support a larger variety of wildlife.

Indigenous Hedge Species Include:

Alder, Blackthorn, Whitethorn, Guelder Rose, Hazel, Spindle, Holly, Privet, Rowan, White Beam, Fuschia.

Avoid:

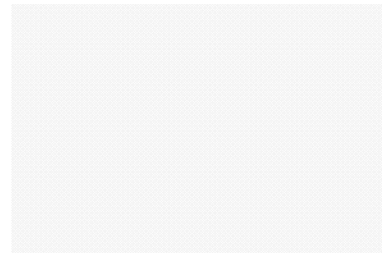
- Suburban type garden layouts and plant species such as Leylandii, Grisellinia, Dwarf Conifers, Phormium and Pampas Grass.

Trees

Again, plant indigenous tree species for shelter and privacy. Indigenous tree species include Ash, Birch, Silver Birch, Blackthorn, Whitethorn, Sycamore, Oak, Mountain Ash, Willow, Holly and Alder.

Note:

A felling licence is required for the felling or uprooting of most trees.



3.0 HOUSE FORM

The aim of this guidance is to provide clear recommendations when designing and constructing our homes that they may offer modern, sustainable and pleasant solutions that sit within our landscape, whilst respecting traditions & lessons of the past.

3.1 HOUSE FORM

Design your house to:

Reduce its visible volume in the landscape *i.e.* Break into several smaller forms rather than one large form.

Reflect scale, form and proportioning of older traditional vernacular architecture of the immediate area.

Maximise on solar heat and light gain to the main living areas by facing them southwards.

Create sheltered private external spaces.

Maintain limited simple windows on the North Elevation & larger openings to the South.

Compose composition around courtyard.

Avoid:

Large span roofs *i.e.* greater than 8 metres.

Large single volume building forms.

NOTE

THIS DOES NOT PRECLUDE HIGH QUALITY CONTEMPORARY ARCHITECTURAL DESIGN THAT IS SENSITIVELY SITED, SCALED AND DETAILED.

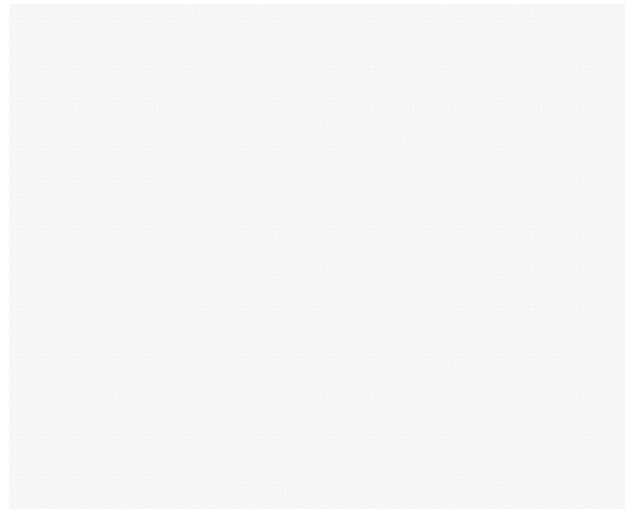


Figure 12

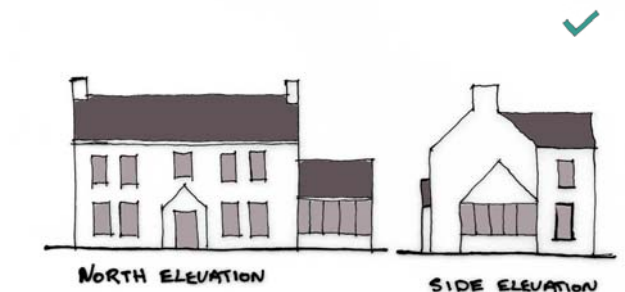


Figure 13

Irish Vernacular

The traditional Irish Vernacular house or cottage was normally one room deep. If a building becomes more than 2 rooms deep, the roof span is consequently doubled or tripled in size and the apex is raised substantially. This increases the visible volume of the building dramatically, making the house very imposing on the landscape. It is acknowledged that dwellings today provide dramatically more accommodation than they did in the past. However, with careful architectural design, it is possible to retain the traditional scale and proportions of our traditional built heritage within the modern context.

Traditional building forms were normally generated with roof pitches between 35 & 45 degrees providing the maximum wind and rain resistance. For both functional and aesthetic reasons, roof pitches should be within this range.

Consider the examples opposite. The dormer house with deep roof span, high ridge and low eaves forms a top heavy and disproportionate composition as compared to the alternative – 1.5 storey house, L-shaped in plan and one room deep.

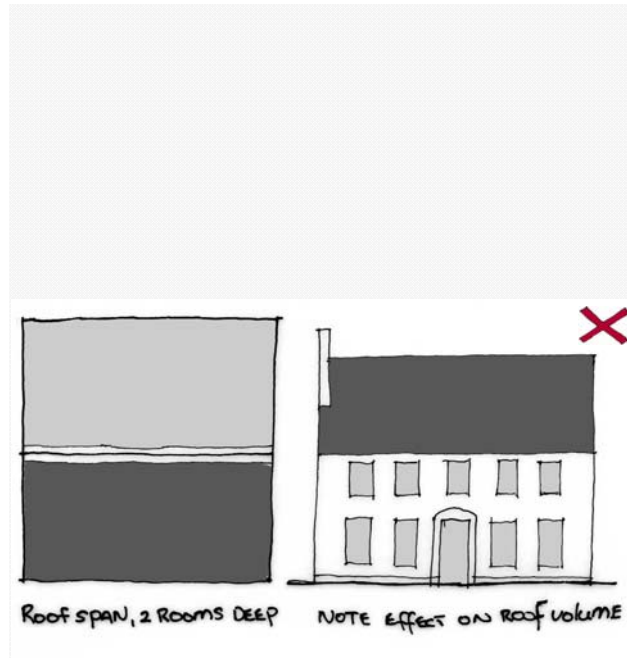


Figure 14

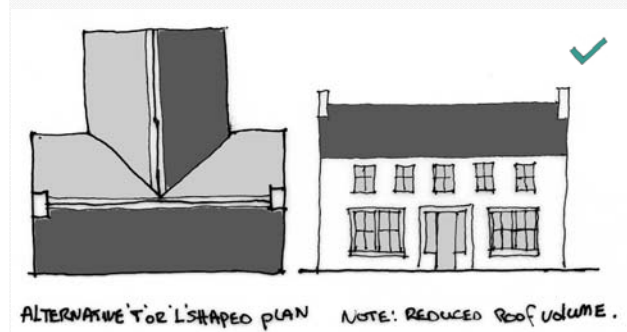


Figure 15

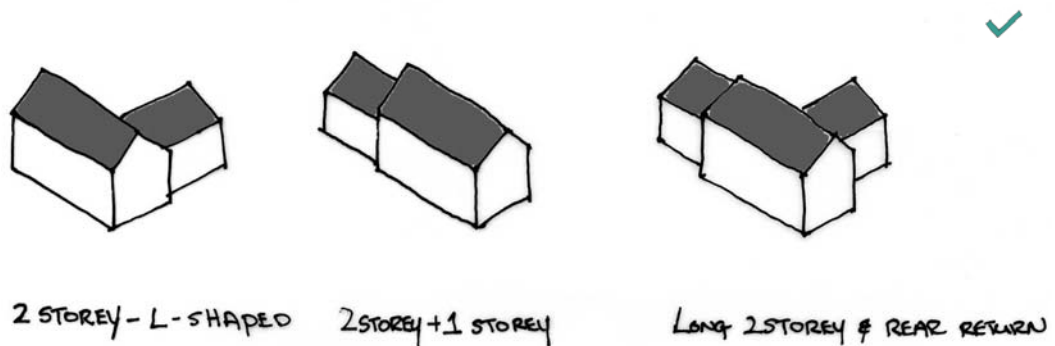


Figure 16



3.2 HOUSE FORM

Contemporary Architectural Design

High quality 'contemporary' style house design is encouraged on suitable sites. Indeed it is important to create a contemporary architectural legacy for future generations. It is advisable to employ the services of an experienced qualified Architect .

Good design will result from:

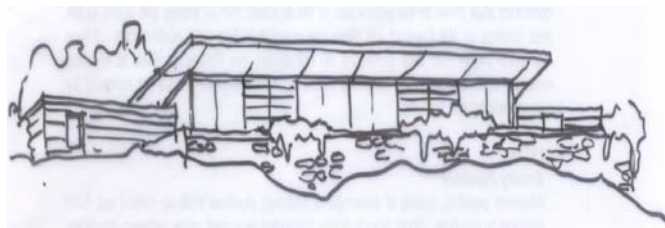
- Simplicity of Forms
- Natural Finishes that blend with the local landscape
- Careful detailing.
- Reduction of visible scale.

Siting, scale , proportioning , materials, finishes and landscaping should all be considered carefully with a view to blending the house harmoniously into the natural landscape.

Materials and detailing should be such to ensure a long lasting quality of finish and resist unnecessary weathering.



A low flat roofed house, if carefully designed, and finished using natural materials such as wood and stone, will have a very low visual impact on the landscape and may allow for a more prominent setting. Note a vegetation planted roof finish would be possible here, this would have an insulating effect.



A low pitched copper or zinc roof with extended eaves, combined again with natural materials and glass create a low impact design. Note the horizontal emphasis and planting.

A modern styled traditionally proportioned house, combined with visually separated lower level extensions, allows for a suitably scaled building with a large floor area.



The 'Narrow Plan'

In addition to the pleasing aesthetic proportions this option can provide, the narrow plan form can provide other significant advantages. With the correct orientation, and windows located appropriately i.e. large windows to the South, small windows to the North, a narrow plan form will be rewarded with beneficial passive solar heat gain. This simple measure can ensure that all major rooms can enjoy a bright, pleasant and warm atmosphere whilst significantly reducing heat & energy costs.

Optimum depth – 6 to 7 metres.

Avoid:
Deep plan – benefit of solar gain reduced.

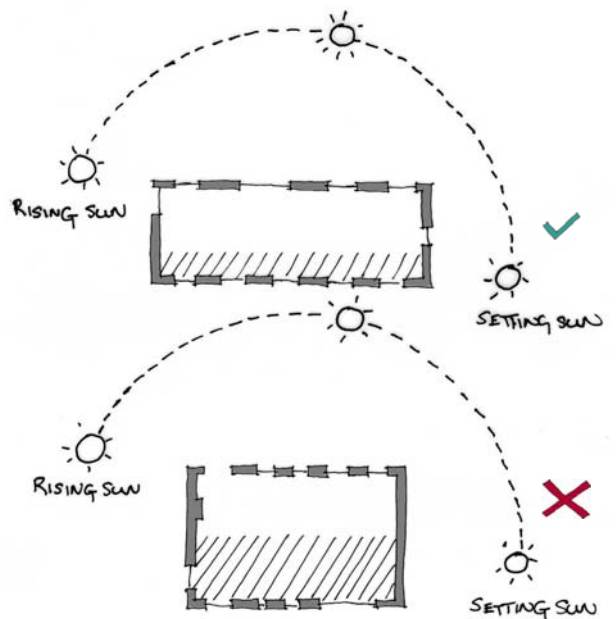
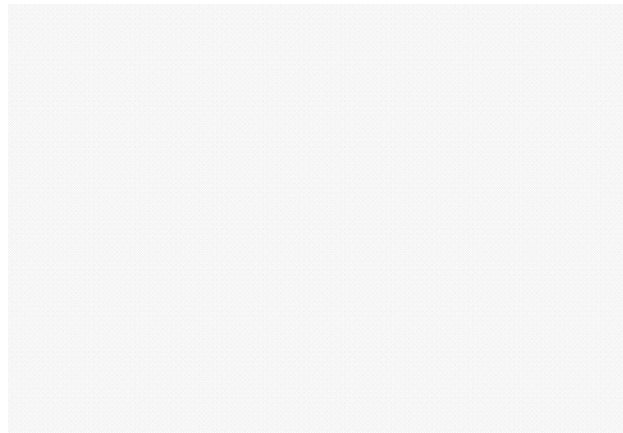


Figure 17

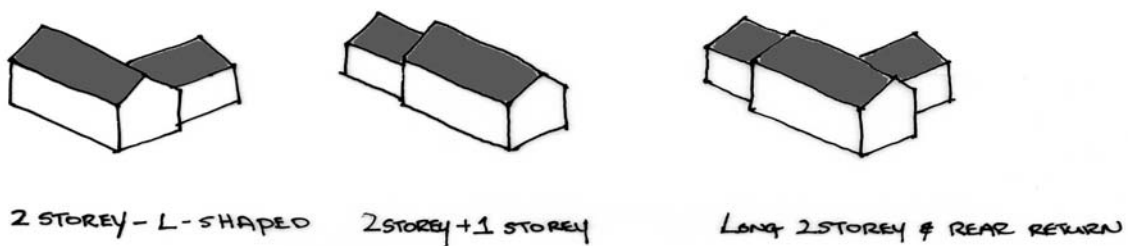


Figure 18



4.0 HOUSE CONSTRUCTION & DETAIL

The aim of this guidance is to provide clear recommendations when designing and constructing our homes, to avoid alien & unsympathetic design details within the context of a Rural setting.

NOTE

THIS DOES NOT PRECLUDE HIGH QUALITY CONTEMPORARY ARCHITECTURAL DESIGN

4.1 HOUSE CONSTRUCTION & DETAIL

'Porches'

The design of an entrance 'Porch' should be of solid construction and reflect the character, detail and proportion of the existing or proposed house.

Avoid:

Neo-classical, pedimented porches with mock Greek columns and lightweight flat roof construction finished with P.V.C

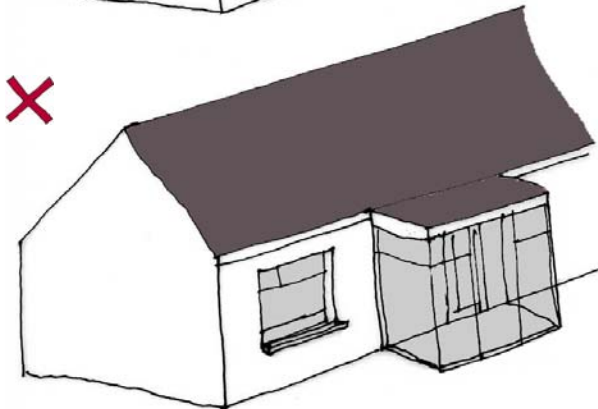
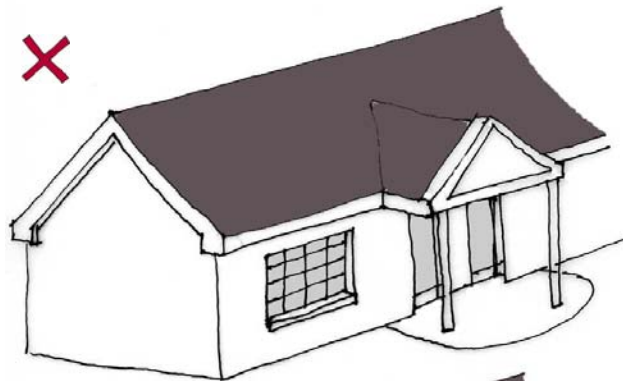
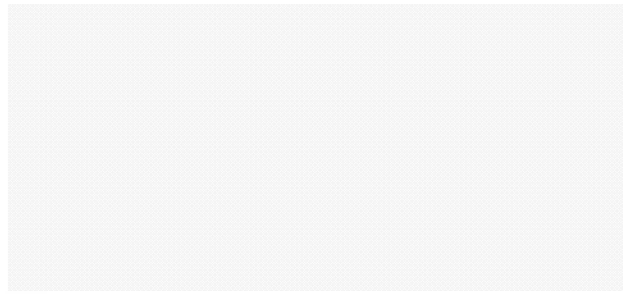


Figure 19

4.2 HOUSE CONSTRUCTION & DETAIL

'Doors'

The traditional hardwood door is always the most elegant and can be easily adapted/altere d to suit the modern context. Two varieties exist:

- The 'vertically sheeted' door.
 - The panelled door consisting of 4 or 6 panels.
- A glazed panel can be easily incorporated.



All doors with side-lights should ideally be symmetrical and of simple design. Glass block or sand blasted glass could be used as a modern addition.



Avoid:

- Elaborate / ornate doors
- Asymmetry and patterned glass.
- PVC and aluminium doors.



Figure 20



4.3 HOUSE CONSTRUCTION & DETAIL

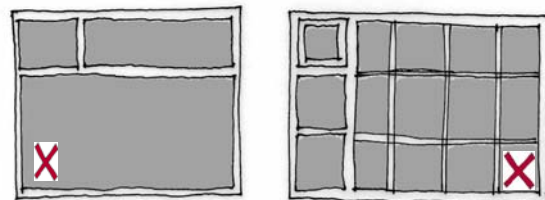
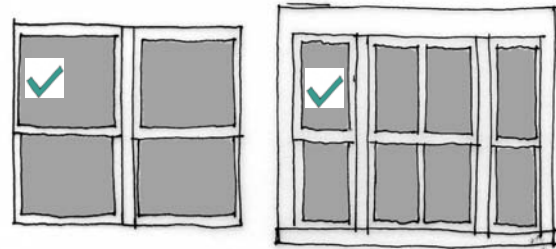
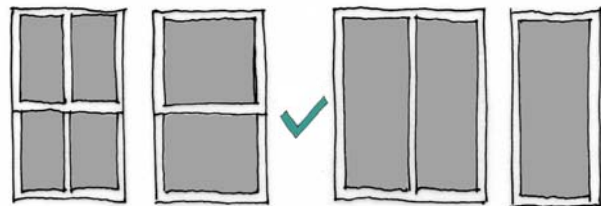
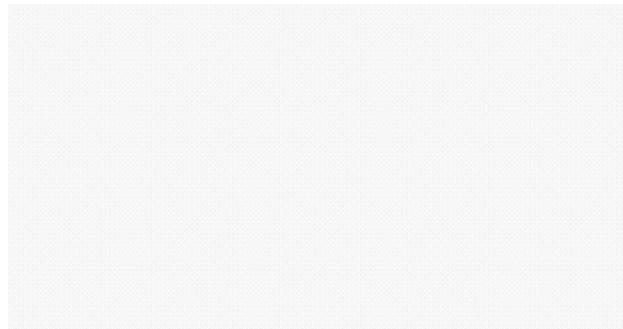
'Windows'

The 'Golden Section' – ratios of height to width (2-1,3-2,5-3,8-5,13-8) have always been considered to be universally pleasing to the eye. They have been used unconsciously in traditional building and can be seen in all the older cottages and houses throughout Ireland. These proportions are considered harmonious with nature. Large wide horizontal openings are deemed the single most common fault in badly designed houses in the Country. Simple design and vertical proportioning is the key to success.

Traditional windows still work well in the modern context. Alternatively, modern examples with a vertical emphasis are acceptable.

Avoid:

- Wide horizontal windows
- Elaborate and excessive subdivision e.g. 'Georgian' style.



Bay Windows

Bay Windows should be simple in form, geometric and symmetrical.

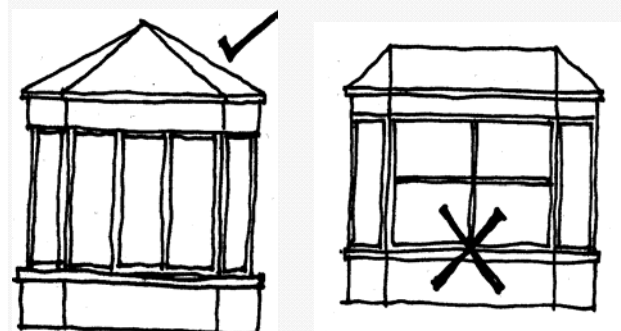
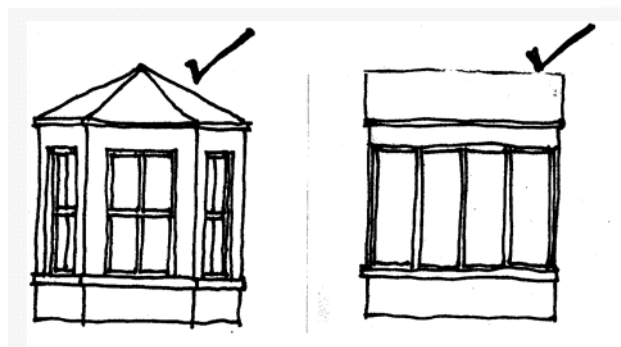
Roof finish, pitch and detailing should match that of house roof.

Windows should match style and proportioning of the other house windows.

Large badly proportioned panes should be avoided..

Form: generally in a traditional style house, the overall bay window form should be substantial. Rendered block piers generally look more suitable than lightweight steel or timber piers

Avoid a bay window structure out of character with the rest of the house.



4.4 HOUSE CONSTRUCTION & DETAIL

'Roof Details'

- Exposed rafters can add attractive detail.
- Traditional flush eaves where soffit is omitted and slate does not project beyond face of wall.
- Traditional concrete barge.

Avoid:

- Projecting soffit and barge at gable.
- Box eaves detail.



Figure 20

- Solid full or half dormer is acceptable.

Avoid:

- Dormers projecting through roof plane.
- Lean to dormers.
- Flat roof dormers.

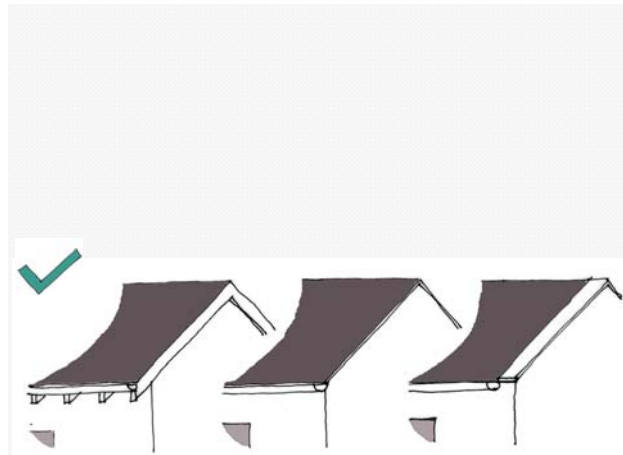


Figure 21



Figure 22

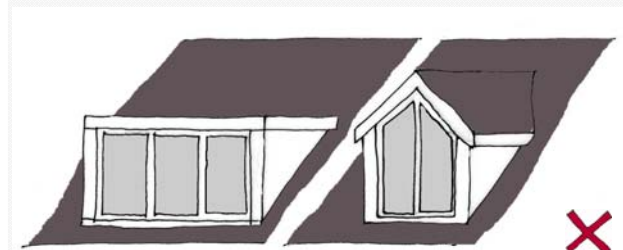


Figure 23

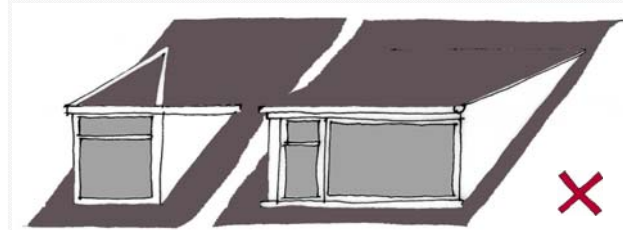


Figure 22



5.0 MATERIALS

The aim of this guidance is to provide clear recommendations when designing and constructing our homes to avoid alien & unsympathetic materials, and to act as a reminder of the intrinsic value of traditional materials used for generations and their relevance in the modern context.

5.1 MATERIALS

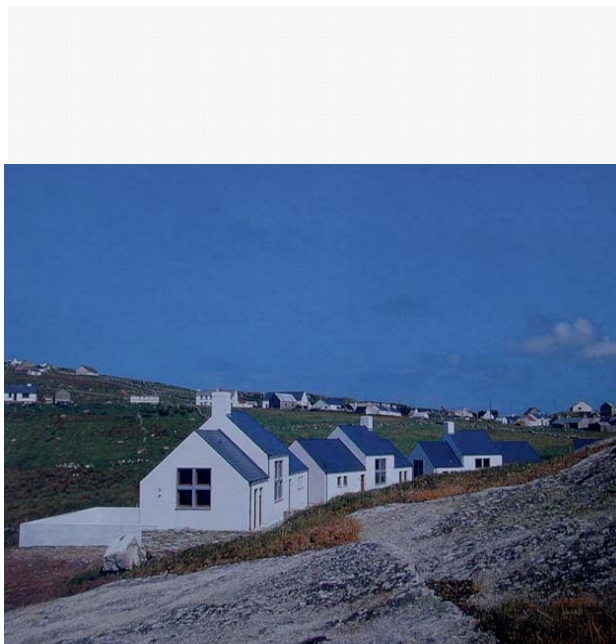
Simplicity of form and the use of a limited palette of materials, window types and roof features will ensure the finished house will merge rather than clash with the landscape.

Wall finishes

- **Nap /Smooth Plaster**—always suitable. Cement based plaster should be painted. Self coloured plasters or long life paints remove the need for regular maintenance.
- **Wet / Dry Dash Plaster**— not recommended generally. Difficult to paint, collects dirt and generally appears very dull in the landscape. However, depending on its location, specialist lime and stone mixes may give an attractive aged appearance especially when combined with smooth window and door reveal details.
- **Artificial stone / Brick** is not acceptable.
- **Metal and other cladding** is not generally recommended.
- **Hardwood sheeting** is not considered a vernacular detail and may not weather well. However, it may be suitable in a wooded location.

Roof Finishes

- **Natural Slate** – traditional roofing material, particularly recommended for its durability and aesthetic qualities. Recently Artificial Slate have been produced to imitate the texture, weight and colour variety of natural slate. They do however, reflect light in a completely different way to natural slate and its colour fades eventually.
- **Plain Black Concrete Tiles**— These have a heavy appearance and will eventually discolour. Natural slate should ideally be used in preference at every opportunity.
- **Clay & Profiled Concrete Tiles**—these are not considered acceptable.
- **Thatch**—should be used on traditional style single storey cottages only. Care should be taken to ensure traditional Irish Type thatching. Note: Thatched houses in Ireland rarely had dormer windows. Seek expert professional advice.



5.2 MATERIALS

Roof Finishes contd.

- **Corrugated Metal Sheet**—this traditional material should be pre-coloured deep dark red or green and have barrel vaulted profile typical of traditional examples.
- **Plastic Profile Sheeting is not considered acceptable.**

Zinc or Copper sheeting: This will be considered in the context of each individual application.

Windows & Doors:

- **Timber**—Hardwood windows have generally a long life. A hardwood window may be painted any colour and is repaired easily.
- **PVC**—White plastic PVC appears artificial within the rural context. They can never be painted a different colour and are difficult to repair. Woodgrain coated PVC with a selected colour may be acceptable.
- **Aluminium**— Aluminium windows should be colour coated, preferable to a non-white colour. Hardwood should ideally be used in preference.

A note on Colour:

- **White / Cream White:** White nearly always looks good in rural setting.
- **Cream / Grey:** This may appear dull and lifeless.
- **Bright Strong Colours—should be avoided.**
- **Pastels:** Pale Pinks, Yellows, Blues, Greens etc. are essentially an urban palette. They should be avoided in the Rural context..
- **Deep Dark Strong Colours**— Deep red or green, these may look well where a house is set among trees or where there is a tradition of strong colours in the immediate area.
- **Precoloured Dash** —carefully selected dark brown or sand coloured dark finishes may look well and merge successfully with the landscape. White dry dash and grey wet dash finishes should be avoided.
- **Precoloured Plaster**—choose carefully, some make fade very quickly.



6.0 ENVIRONMENTAL SUSTAINABILITY

The aim of this guidance is to highlight the importance and benefits of appraising our natural environment when designing and locating our homes, so that they can be designed to merge and adapt to our environment in the interests of the local & global context.

All new houses are now required to carry a 'Building Energy Rating' (B.E.R.) reflecting its insulation quality and fuel efficiency. The Irish Building Regulations now require very high insulation standards. The B.E.R. of a house will greatly affect its market value and saleability. Again, good design following simple sustainability guidelines will ensure a warm comfortable house, low energy bills, and a good re-sale value.

For further Guidelines see www.sei.ie

6.1 ENVIRONMENTAL SUSTAINABILITY

Aspiration:

A development should aim to:

1. Minimise CO₂ emissions and environmental pollution in both its construction and use.
2. Minimise the requirement for artificial heating and lighting.
3. Be constructed of natural and preferably locally sourced materials.
4. Use renewable energy for heating and possibly lighting.
5. Visually enhance rather than detract from our countryside and natural heritage.
6. Merge into the natural environment rather than stand out from it.
7. Minimise the removal or alteration of natural plant and animal habitats.
8. Be adaptable to changing use/lifestyles and long lasting.

Site:

Choose as sheltered a site as possible, avoid sites exposed to prevailing winds.

Retain as many trees, shrubs, hedgerows and stone walls as possible on the site.

Minimise the required road set back to the minimum allowed.

Replant hedgerows that have had to be removed and relocate behind new road boundary line.

Provide new planting of indigenous trees and shrubs on site to provide wind shelter and privacy to your house.

Site Location:

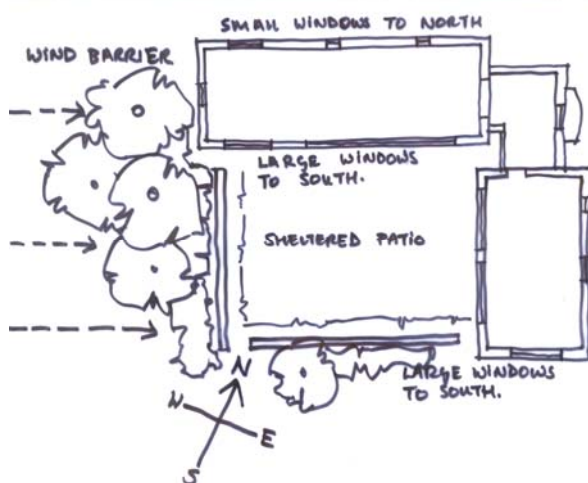
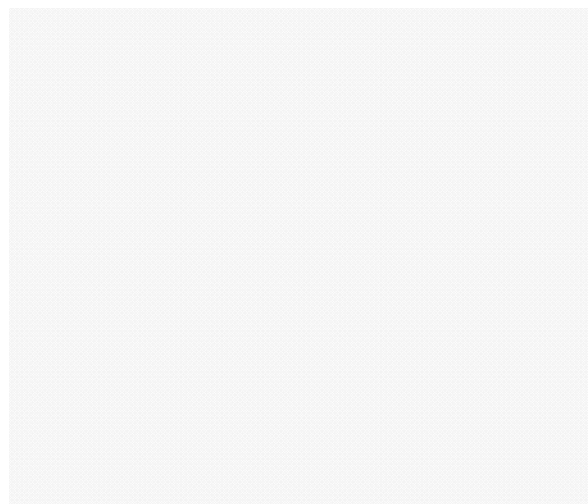
Position and design a house to maximize enjoyment of the sun especially in the main living areas. Locate the house to maximize on wind shelter by adjacent hills and trees.

House Design:

Remember, the larger the house, the more heating it requires and the greater the CO₂ emissions.

A smaller well designed house will offer a far more pleasant and comfortable environment than a large house with a lot of unused empty space.

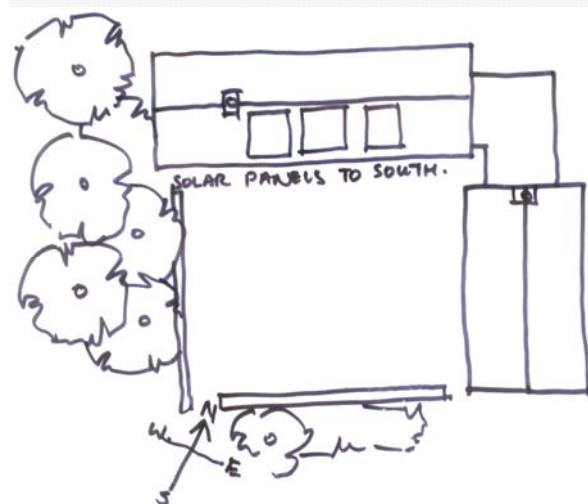
Good design will make up for lack of size.



Provide walls and planting to give shelter to house and patio area from prevailing south-westerly winds.

Face larger windows in a southerly direction.

Arrange buildings such that an area of roof slopes as near to directly southwards as possible to accommodate solar roof panels.



6.2 ENVIRONMENTAL SUSTAINABILITY

House Design contd.

Locate and direct your living and kitchen spaces to face somewhere between Southeast and Southwest to maximize passive solar heat gain.

Position larger windows to the South elevations and smaller windows of limited number to the North. Avoid excessive amounts of glazing on the colder North, North Easterly & Westerly elevations. Specify 'Low Emissivity' Argon filled double or triple glazing.

Avoid elaborate projecting features such as dormer and bay windows. These projections are difficult to insulate and greatly increase heat loss.

Plan part of your roof slope southwards that it may accommodate solar panels now or at some stage in the future. Fit a hot water cylinder designed to allow for the later investment in solar water heating panels.

Use a solid fuel stove instead of an open fire, most heat is lost up open chimney. Provide a designated air supply to feed the stove in order to prevent drafts.

- Construct using natural and preferably locally produced products and materials.
- Use recycled materials.
- Ensure a well sealed draft free house by careful construction. Consider using a heat recovery ventilation system.
- Allow for later fitting of sustainable energy sources eg. solar, wind generating, heat pump.
- Insulate, insulate, insulate.
- Install a good effluent treatment unit and maintain regularly.
- Collect and re-use rainwater.
- Plant lots of trees and sheltering indigenous hedges.

Benefits of Good Sustainable Design

Greatly increased re-sale value due to higher B.E.R Rating.

Greatly reduced heat and lighting bills.

Greater comfort and warmth within the house.

Greater enjoyment of natural light.

7.0 BUILDING REGULATIONS

The aim of this guidance is to highlight and remind in a brief manner, all those seeking to design and construct a house, of the modern Legal & statutory context that exists in the Irish construction Industry today.

7.1 A NOTE ON THE BUILDING REGULATIONS

It is often assumed that Planning Permission also means that you have complied with the Building Regulations.

This is not the case! Later attempts to achieve compliance may compromise your original planning permission and be very expensive to rectify.

The building regulations should be fully considered at the pre-planning design stage and will result in a warmer, dryer, safer and more accessible and more valuable house in the future.

Noteworthy aspects of the Regulations are:

Part 'M' - Access for People with Disabilities.

It is now the law that all dwellings be accessible and visitable by persons with disabilities.

The regulations set down requirements such as level threshold at main entrance door, appropriately sized ground floor W.C etc.

The site approach to the main entrance should be no steeper than 1 in 20. Refer to section 1B of Technical Guidance Document—Part 'M'.

Conservation of Energy Performance of Buildings Regulations & Part L Regulations (Conservation of Fuel & Energy).

The new 'Building Energy Rating' (B.E.R) requirements for all new houses will affect the amount of glazing your house accommodates. Elaborate features such as dormers, bay windows & conservatories particularly those positioned at inappropriate locations may lower the H.E.R rating. Whereas correctly oriented larger windows will greatly improve it. A good H.E.R value will greatly improve your resale value.

Other important regulations on Fire Safety (Part 'B') and Ventilation (Part 'F') may also compromise your planning permission.



8.0 MAKING AN APPLICATION

The aim of this guidance is to provide clear recommendations when submitting a planning application to construct a house, in order that a full, complete and concise application is submitted and that all such matters that were generally considered trivial are now given the due and proper attention that is warranted.

8.1 PLANNING APPLICATION SUBMISSION.

Your Planning Application Documentation should demonstrate the following.

1. Site Survey, Site Plan and Site Sections should indicate:
 - Existing & Proposed site levels.
 - Proposed site boundary planting.
 - Proposed shelter & screen planting.
 - Effective design measures to maximise energy efficiency and passive solar heat gain.
 - Design measures to minimise the visual impact any proposal may have on its immediate environment and the surrounding landscape.
2. Site Boundary wall, gate plan and elevations.

